



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

To: Interested Parties

Date: December 24, 2014

From: Matthew Stuckey, Chief  
Permits Branch  
Office of Air Quality

Source Name: Pendleton Correctional Facility

Permit Level: New Source Review (NSR) and  
Federally Enforceable State Operating Permit (FESOP) Renewal

Permit Number: 095-32852-00006

Source Location: 4490 West Reformatory Road  
Pendleton, Indiana

Type of Action Taken: Permit Renewal  
Modification at an existing source  
Revisions to permit requirements  
Changes that are administrative in nature

## **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 matter referenced above.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>  
To view the document, select Search option 3, then enter permit 32852.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

Indiana Government Center North, Room 1201  
100 North Senate Avenue, MC 50-07  
Indianapolis, IN 46204  
Phone: 1-800-451-6027 (ext. 4-0965)  
Fax (317) 232-8659

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.

*(continues on next page)*

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.



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**New Source Review (NSR) and  
Federally Enforceable State Operating Permit Renewal  
OFFICE OF AIR QUALITY**


**Pendleton Correctional Facility  
4490 W. Reformatory Road  
Pendleton, Indiana 46064**

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions

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 FESOP under 326 IAC 2-8.

Operation Permit No. F095-32852-00006	
Issued by:  Nathan C. Bell, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 24, 2014  Expiration Date: December 24, 2024



## TABLE OF CONTENTS

<b>A. SOURCE SUMMARY</b> .....	<b>6</b>
A.1 General Information [326 IAC 2-8-3(b)]	
A.2 Source Definition [326 IAC 2-8-1][326 IAC 2-7-1(22)]	
A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]	
A.5 FESOP Applicability [326 IAC 2-8-2]	
<b>B. GENERAL CONDITIONS</b> .....	<b>14</b>
B.1 Definitions [326 IAC 2-8-1]	
B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]	
B.3 Term of Conditions [326 IAC 2-1.1-9.5]	
B.4 Enforceability [326 IAC 2-8-6][IC 13-17-12]	
B.5 Severability [326 IAC 2-8-4(4)]	
B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]	
B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]	
B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]	
B.12 Emergency Provisions [326 IAC 2-8-12]	
B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]	
B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]	
B.16 Permit Renewal [326 IAC 2-8-3(h)]	
B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]	
B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]	
B.19 Source Modification Requirement [326 IAC 2-8-11.1]	
B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2] [IC 13-30-3-1]	
B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.22 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16] [326 IAC 2-1.1-7]	
B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314][326 IAC 1-1-6]	
<b>C. SOURCE OPERATION CONDITIONS</b> .....	<b>24</b>
<b>Emission Limitations and Standards [326 IAC 2-8-4(1)]</b>	
C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]	
C.2 Overall Source Limit [326 IAC 2-8]	
C.3 Opacity [326 IAC 5-1]	
C.4 Open Burning [326 IAC 4-1][IC 13-17-9]	
C.5 Incineration [326 IAC 4-2][326 IAC 9-1-2]	
C.6 Fugitive Dust Emissions [326 IAC 6-4]	
C.7 Stack Height [326 IAC 1-7]	
C.8 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]	
<b>Testing Requirements [326 IAC 2-8-4(3)]</b>	
C.9 Performance Testing [326 IAC 3-6]	
<b>Compliance Requirements [326 IAC 2-1.1-11]</b>	
C.10 Compliance Requirements [326 IAC 2-1.1-11]	

**Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

- C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]
- C.12 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)]  
[326 IAC 2-8-5(1)]

**Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

- C.13 Risk Management Plan [326 IAC 2-8-4][40 CFR 68]
- C.14 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]
- C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]  
[326 IAC 2-8-5]

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

- C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
- C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]

**Stratospheric Ozone Protection**

- C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

**D.1. EMISSIONS UNIT OPERATION CONDITIONS..... 31**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.1.1 FESOP and PSD Minor Limits: SO<sub>2</sub>, NO<sub>x</sub>, and CO [326 IAC 2-8-4] [326 IAC 2-2]  
[326 IAC 4-2] [326 IAC 12] [40 CFR 60, Subpart AAAA] [40 CFR 60, Subpart CCCC]  
[40 CFR 63, Subpart EEE]
- D.1.2 Startup, Shutdown, and Other Opacity Limits [326 IAC 5-1-3]
- D.1.3 Particulate Emission Limits for Indirect Heating Units [326 IAC 6-2]
- D.1.4 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-2][326 IAC 7-2-1]
- D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

- D.1.6 Fuel Specifications
- D.1.7 Sulfur Dioxide (SO<sub>2</sub>) Emissions and Sulfur Content
- D.1.8 Fuel Usage
- D.1.9 Particulate Control (PM/PM<sub>10</sub>/PM<sub>2.5</sub>)
- D.1.10 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11] [326 IAC 6-2]

**Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

- D.1.11 Visible Emissions Notations
- D.1.12 Cyclone Failure Detection

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-16]**

- D.1.13 Record Keeping Requirements
- D.1.14 Reporting Requirements

**D.2. EMISSIONS UNIT OPERATION CONDITIONS - Material Handling Operations ..... 39**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.2.1 Particulate Emission Limitations, For Manufacturing Processes [326 IAC 6-3-2]

**D.3 EMISSIONS UNIT OPERATION CONDITIONS- Autobody Refinishing Operations..... 40**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.3.1 Volatile Organic Compound (VOC) Limits [326 IAC 8-10-3][326 IAC 8-10-4]
- D.3.2 Work Practice Standards [326 IAC 8-10-3][326 IAC 8-10-5]
- D.3.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

D.3.4 Volatile Organic Compounds (VOC) [326 IAC 8-10-3][326 IAC 8-10-7][326 IAC 8-1-4]

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-16]**

**[326 IAC 8-10-3][326 IAC 8-10-5(d)(4)][326 IAC 8-10-6(c)][326 IAC 8-10-9]**

D.3.5 Record Keeping Requirements [326 IAC 8-10-3] [326 IAC 8-10-5(d)(4)] [326 IAC 8-10-9]

D.3.6 Reporting Requirements [326 IAC 8-10-3] [326 IAC 8-10-6(c)] [326 IAC 8-10-9(e)]

**D.4 EMISSIONS UNIT OPERATION CONDITIONS- Degreasing Operations ..... 42**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-8]

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

D.4.3 Record Keeping Requirement [326 IAC 8-3-8]

**D.5 EMISSIONS UNIT OPERATION CONDITIONS- Insignificant Boilers & Hot Water Heaters ..... 44**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.5.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2]

**E.1. NSPS REQUIREMENTS - Boilers ..... 46**

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]**

E.1.1 General Provisions Relating to New Source Performance Standards (NSPS) Requirements under 40 CFR Part 60 [326 IAC 12-1][40 CFR 60, Subpart A]

E.1.2 New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc][326 IAC 12]

**E.2. NESHAPs REQUIREMENTS - Boilers ..... 48**

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements**

**[326 IAC 2-8-4(1)]**

E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A] [326 IAC 20-1]

E.2.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Industrial, Commercial, and Institutional Boilers Area Sources [40 CFR 63, Subpart JJJJJJ]

**E.3. NESHAPs REQUIREMENTS - Autobody Refinishing Operations..... 50**

**National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements**

**[326 IAC 2-8-4(1)]**

E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A] [326 IAC 20-1]

E.3.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources [40 CFR 63, Subpart HHHHHH]

**E.4. NESHAPS REQUIREMENTS - Gasoline Fuel Transfer and Dispensing Operations.....51**

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements**

**[326 IAC 2-8-4(1)]**

- E.4.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A] [326 IAC 20-1]
- E.4.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Category: Gasoline Dispensing Facilities [40 CFR 63, Subpart CCCCCC]

Certification Form ..... 53  
Emergency Occurrence Form ..... 54  
FESOP Quarterly Report Forms ..... 56  
Quarterly Deviation and Compliance Monitoring Report Form ..... 58  
NSPS Subpart Dc - Standards for Small Indstrl-CmmrcI-Instttnl Steam Generating Units ..... Attachment A  
NESHAP Subpart JJJJJJ - Standards for Industrial, Commercial, and Institutional Boilers ..... Attachment B  
NESHAP Subpart HHHHHH - Stds for Paint Stripping and Miscellaneous Surface Coating Ops ... Attachment C  
NESHAP Subpart CCCCCC - Standards for Source Category: Gasoline Dispensing Facilities ..... Attachment D  
326 IAC 8-10 - Automobile Refinishing ..... Attachment E

## SECTION A

## SOURCE SUMMARY

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

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary correctional institution.

Source Address:	4490 W. Reformatory Road, Pendleton, Indiana 46064
General Source Phone Number:	(765) 778-2107
SIC Code:	9223 (Correctional Institutions)
County Location:	Madison
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State 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 Source Definition [326 IAC 2-8-1][326 IAC 2-7-1(22)]

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This source consists of three (3) plants, as follows:

- (a) The Pendleton Correctional Facility (IR) (source #095-00006), 4490 West Reformatory Road, Pendleton, IN 46064;
- (b) The Correctional Industrial Facility (CIF) (source #095-00104), 5124 Reformatory Rd., Pendleton, IN 46064; and
- (c) The Pendleton Juvenile Correctional Facility (PJCF), 9310 South State Road 67, Pendleton, IN 46064.

All three (3) plants are located on the same contiguous property, have the same Standard Industrial Classification (SIC) code (9223), and are under common ownership and common control. Therefore, all three plants will be considered one (1) "major source", as defined by 326 IAC 2-7-1(22), effective from the date of issuance of this FESOP Renewal, No. F095-32852-00006.

### A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

#### ***Pendleton Correctional Facility (IR)***

- (a) One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National



Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (b) One (1) natural gas-fired boiler, identified as Boiler B-2, constructed in 1961 as a coal-fired boiler and modified in 1998 to burn only natural gas, with a maximum heat input capacity of 79.13 million British thermal units per hour, with emissions exhausting to stack S-B-2.
- (c) One (1) natural gas-fired boiler, identified as Boiler B-3, constructed in 1968 as a coal-fired boiler, and modified in 1998 to burn only natural gas, with a maximum heat input capacity of 98.9 million British thermal units per hour, with emissions exhausting to stack S-B-3.
- (d) One (1) dual fuel-fired boiler, identified as Boiler B-4, constructed in 1983, with a maximum heat input capacity of 41.00 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-4.

Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this is considered an affected facility.

- (e) One (1) dual fuel-fired boiler, identified as Boiler B-5, constructed in 1995, with a maximum heat input capacity of 61.89 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-5.

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (f) One (1) wood chip handling and storage operation, identified as IR-WCHS, constructed in 2007, modified in 2008, and consisting of the following:
  - (1) One (1) truck unloading operation with a maximum throughput of 18,400 pounds of wood chips per hour.
  - (2) One (1) wood chip storage silo, with a maximum storage capacity of 220,000 pounds of wood chips (volumetric capacity 10,598 cubic feet), with emissions controlled by a baghouse.
  - (3) One (1) wood chip handling system with a maximum throughput of 3,000 pounds of wood chips per hour, with emissions controlled by a baghouse, including: six (6) augers, one (1) conveyor, one (1) bucket elevator, and one (1) metering bin.
- (g) One (1) 2,922 Hp diesel fuel-fired emergency generator, identified as G-1, constructed in 2002, uncontrolled, and exhausting to the atmosphere;
- (h) One (1) autobody refinishing operation, identified as IR-ARO, constructed in 1961, using airless spray application methods to apply a maximum of 0.04 gallons of coatings per hour, and 3.08 gallons per day, to metal automobile bodies, uncontrolled, and exhausting inside the building;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.

**Pendleton Juvenile Correctional Facility (PJCF)**

- (i) One (1) 1,900 Hp diesel fuel-fired emergency generator, identified as G-4, constructed in 2000, uncontrolled, and exhausting to the atmosphere;

**A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]**

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This stationary source also includes the following insignificant activities:

**Pendleton Correctional Facility (IR)**

- (a) One (1) enclosed ash disposal system, identified as IR-AWD, constructed in 2007, with a maximum throughput of 500 pounds of ash per hour, uncontrolled, exhausting to the atmosphere, and including: four (4) augers and one (1) covered dumpster;
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including five (5) cold cleaner degreaser units, collectively identified as the Parts Washers, constructed after July 1, 1990; [326 IAC 8-3-2] [326 IAC 8-3-8]
- (c) A gasoline fuel transfer and dispensing operation, identified as IR-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 100 gallon moveable gasoline transfer tank, identified as IR-AST1, constructed in 1983, uncontrolled, and venting to the atmosphere;

Under 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, the gasoline fuel transfer and dispensing operation is considered an affected facility.

- (d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment, as follows:
  - (1) One (1) submerged arc welding (SAW) station, with a maximum electrode consumption of 1.35 lbs/hr, uncontrolled, and exhausting inside the building;
  - (2) Four (4) Metal Inert Gas (MIG) (carbon steel) welding stations, with a maximum electrode consumption of 0.5 lbs/hr, each, uncontrolled, and exhausting inside the building;
  - (3) Two (2) Tungsten Inert Gas (TIG) (carbon steel) welding stations, with a maximum electrode consumption of 0.5 lbs/hr, each, uncontrolled, and exhausting inside the building; and
  - (4) One (1) plasma cutting station, cutting a maximum of 0.75 inch metal thickness at a maximum rate of 48 inches per minute, uncontrolled, and exhausting inside the building.
- (e) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
  - (1) Four (4) natural gas-fired radiant heaters, identified as B-20 through B-23, constructed in 1985, with a maximum heat input capacity of 0.10 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
  - (2) One (1) natural gas-fired furnace, identified as B-24, constructed in 1985, with a maximum heat input capacity of 0.075 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;

- (3) Two (2) natural gas-fired force air space heaters, identified as B-25 and B-26, constructed in 1985, with a maximum heat input capacity of 0.05 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
  - (4) One (1) natural gas-fired office space heater, identified as B-27, constructed in 1985, with a maximum heat input capacity of 0.135 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;
  - (5) One (1) natural gas-fired shop space heater, identified as B-28, constructed in 1985, with a maximum heat input capacity of 0.196 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;
  - (6) One (1) natural gas-fired hot water heater, identified as B-29, constructed in 1985, with a maximum heat input capacity of 0.075 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (f) One (1) petroleum fuel, other than gasoline, dispensing facility, identified as IR-DDF, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, including one (1) 500 gallon moveable diesel fuel oil transfer tank on a trailer, identified as IR-AST2, constructed in 1983, uncontrolled, and venting to the atmosphere.

***Correctional Industrial Facility (CIF)***

- (g) Two (2) 890 Hp diesel fuel-fired emergency generators, identified as G-2 and G-3, constructed in 1991, uncontrolled, and exhausting to the atmosphere;
- (h) A fuel dispensing station, consisting of:
- (1) A gasoline fuel transfer and dispensing operation, identified as CIF-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 5,000 gallon aboveground gasoline storage tank, identified as CIF-AST1, constructed in 2014, uncontrolled and venting to the atmosphere;  
  
Under 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, the gasoline fuel transfer and dispensing operation is considered an affected facility.
  - (2) One (1) petroleum fuel, other than gasoline, dispensing facility, identified as CIF-DDF, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, including:
    - (1) One (1) 5,000 gallon aboveground diesel fuel oil storage tank, identified as CIF-AST1, constructed in 2013, uncontrolled, and venting to the atmosphere;
    - (2) One (1) 2,000 gallon aboveground diesel fuel oil storage tank, identified as CIF-AST2, constructed in 2014, uncontrolled, and venting to the atmosphere; and
    - (3) One (1) 1,000 gallon aboveground diesel fuel oil storage tank, identified as CIF-AST3, constructed in 2014, uncontrolled, and venting to the atmosphere.

- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment, and including:
  - (1) Three (3) submerged arc welding (SAW) stations, with a maximum electrode consumption of 0.84 lbs/hr, each, uncontrolled, and exhausting inside the building;
- (j) Metal machining operations, including the following:
  - (1) Three (3) grinding stations for machining steel brake shoe frames, identified as CIF-MGS1 through CIF-MGS3, with a maximum throughput capacity of 1,200.0 lbs of frames per hour, combined, uncontrolled, and exhausting inside the building;
  - (2) Metal machining where an aqueous cutting coolant continuously floods the machining interface, including: two (2) CNC machines, identified as R-1 and R-2, for drilling holes in steel brake shoe frames, with a maximum throughput capacity of 1,800.0 frames per day, and a maximum usage of 75 gallons of HAP-free coolant per year, combined;
- (k) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
  - (1) Five (5) natural gas-fired laundry dryers, identified as B-38 through B-42, constructed in 2009, with a maximum heat input capacity of 0.30 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
  - (2) Eight (8) natural gas-fired baking ovens, identified as B-44 through B-51, constructed in 1985, with a maximum heat input capacity of 0.06 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
  - (3) Four (4) natural gas-fired cooking griddles, identified as B-52 through B-55, constructed in 1985, with a maximum heat input capacity of 0.162 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
  - (4) One (1) natural gas-fired large oven, identified as B-56, constructed in 1985, with a maximum heat input capacity of 0.25 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;

***Pendleton Juvenile Correctional Facility (PJCF)***

- (l) One (1) petroleum fuel, other than gasoline, dispensing facility, identified as PJCF-DFD, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, including one (1) 3,400 gallon diesel fuel oil storage tank, identified as PJCF-AST1, constructed in 2000, uncontrolled, and venting to the atmosphere.
- (m) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
  - (1) Two (2) natural gas-fired hot water boilers, identified as B-6 and B-7, constructed in 2000, with a maximum heat input capacity of 1.44 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]

- (2) Eight (8) natural gas-fired boilers, identified as B-8 through B-15, constructed in 2000, with a maximum heat input capacity of 0.25 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (3) Two (2) natural gas-fired boilers, identified as B-16 and B-17, constructed in 2000, with a maximum heat input capacity of 1.44 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (4) Two (2) natural gas-fired hot water boilers, identified as B-18 and B-19, constructed in 2000, with a maximum heat input capacity of 0.5 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (5) Six (6) natural gas-fired hot water heaters, identified as B-30 and B-32 through B-36, constructed in 2000, with a maximum heat input capacity of 1.26 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (6) One (1) natural gas-fired hot water heater, identified as B-31, constructed in 2000, with a maximum heat input capacity of 0.99 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (7) One (1) natural gas-fired hot water heater, identified as B-37, constructed in 2000, with a maximum heat input capacity of 1.8 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (8) One (1) natural gas-fired laundry dryer, identified as B-43, constructed in 2000, with a maximum heat input capacity of 0.3 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;
- (9) One (1) natural gas-fired air handling unit, identified as B-57, constructed in 2000, with a maximum heat input capacity of 0.1 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;

**Activities Common to All Three (3) Locations**

- (n) Paved and unpaved roads and parking lots with public access; [326 IAC 6-4]
- (o) Activities related to routine fabrication, maintenance, and repair of buildings, structures, equipment, or vehicles at the source where air emissions from those activities would not be associated with any commercial production process, including the following:
  - (1) Activities associated with the repair and maintenance of paved and unpaved roads, including paving or sealing, or both, of parking lots and roadways.
  - (2) Painting, including interior and exterior painting of buildings, and solvent use excluding degreasing operations utilizing halogenated organic solvents.  
*(Note: this category includes the IR paint shop which uses brush application methods to apply surface coatings only for maintenance purposes)*
  - (3) Brazing, soldering, or welding operations and associated equipment.
  - (4) Batteries and battery charging stations except at battery manufacturing plants.
  - (5) Lubrication, including the following:
    - (A) Hand-held spray can lubrication.

- (B) Dipping metal parts into lubricating oil.
- (C) Manual or automated addition of cutting oil in machining operations.
- (6) Tarring, re-tarring, and repair of building roofs.
- (p) Activities performed using hand-held equipment, including the following:
  - (1) Application of hot melt adhesives with no VOC in the adhesive formulation.
  - (2) Buffing.
  - (3) Cutting, excluding cutting torches.
  - (4) Drilling.
  - (5) Grinding.
  - (6) Machining wood, metal, or plastic.
  - (7) Polishing.
  - (8) Routing.
  - (9) Sanding.
  - (10) Sawing.
  - (11) Surface grinding.
  - (12) Turning wood, metal, or plastic.
- (q) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (r) Filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.
- (s) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (t) Closed loop heating and cooling systems.
- (u) Blowdown for any of the following: sight glass, boiler, cooling tower, compressors, and pumps;
- (v) Activities associated with emergencies, including the following:
  - (1) On-site fire and emergency response training approved by the department; and
  - (2) Stationary fire pumps;
- (w) Lawn care and landscape maintenance activities and equipment, including the storage, spraying, or application of insecticides, pesticides, and herbicides.
- (x) Construction and demolition operations at the source where air emissions from those activities would not be associated with any commercial production process, including the following equipment and activities:
  - (i) One (1) portable grit blasting unit, identified as GB-2, approved in 2014 for use in construction and demolition operations, with a maximum throughput capacity of 458.2 pounds of coal slag blasting media per hour, operating a maximum of 1,170 hours per twelve (12) consecutive month period, uncontrolled and exhausting to the outdoors; [326 IAC 2-7-1(42)(S)(xi)
  - (2) One (1) 225 Hp, portable, diesel-fired air compressor, identified as GB-2a, approved in 2014 for use in construction and demolition operations, operating a

maximum of 1,170 hours per twelve (12) consecutive month period, uncontrolled and exhausting to the outdoors. [326 IAC 2-7-1(42)(S)(xi)]

Under 40 CFR 1068.30, General Compliance Provisions for Highway, Stationary, and Nonroad Programs, this unit is considered a nonroad engine.

A.5 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

## **SECTION B GENERAL CONDITIONS**

### **B.1 Definitions [326 IAC 2-8-1]**

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

### **B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]**

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- (a) This permit, F095-32852-00006, is issued for a fixed term of ten (10) 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.3 Term of Conditions [326 IAC 2-1.1-9.5]**

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

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

### **B.4 Enforceability [326 IAC 2-8-6][IC 13-17-12]**

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

### **B.5 Severability [326 IAC 2-8-4(4)]**

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

### **B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

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

### **B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]**

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



B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
- (1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and
  - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

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

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The

PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.12 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;

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

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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

- (a) All terms and conditions of permits established prior to F095-32852-00006 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.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]**

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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 nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]**

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(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification 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).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.16 Permit Renewal [326 IAC 2-8-3(h)]**

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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 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application 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).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 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 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

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

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(1) and (c).

(b) Emission Trades [326 IAC 2-8-15(b)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

**B.19 Source Modification Requirement [326 IAC 2-8-11.1]**

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

**B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]**

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

- (a) Enter upon the Permittee's premises where a FESOP 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.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.



B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314][326 IAC 1-1-6]

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

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-8-4(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 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM) from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### 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]**

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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]**

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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]**

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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 Stack Height [326 IAC 1-7]**

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

**C.8 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]**

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.9 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. The protocol submitted by the Permittee does not 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).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.10 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 2-8-4][326 IAC 2-8-5(a)(1)]**

C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

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- (a) For new units:  
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:  
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 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, 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).

C.12 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

**Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

C.13 Risk Management Plan [326 IAC 2-8-4][40 CFR 68]

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

C.14 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]

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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.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

### **C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]**

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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. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

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.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]**

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- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

- (b) The address for report submittal is:

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) 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.

### **Stratospheric Ozone Protection**

#### **C.18 Compliance with 40 CFR 82 and 326 IAC 22-1**

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



## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Boilers B-1 through B-5

#### *Pendleton Correctional Facility (IR)*

- (a) One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (b) One (1) natural gas-fired boiler, identified as Boiler B-2, constructed in 1961 as a coal-fired boiler and modified in 1998 to burn only natural gas, with a maximum heat input capacity of 79.13 million British thermal units per hour, with emissions exhausting to stack S-B-2.

- (c) One (1) natural gas-fired boiler, identified as Boiler B-3, constructed in 1968 as a coal-fired boiler, and modified in 1998 to burn only natural gas, with a maximum heat input capacity of 98.9 million British thermal units per hour, with emissions exhausting to stack S-B-3.

- (d) One (1) dual fuel-fired boiler, identified as Boiler B-4, constructed in 1983, with a maximum heat input capacity of 41.00 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-4.

Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (e) One (1) dual fuel-fired boiler, identified as Boiler B-5, constructed in 1995, with a maximum heat input capacity of 61.89 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-5.

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

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

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.1.1 FESOP and PSD Minor Limits: SO<sub>2</sub>, NO<sub>x</sub>, and CO [326 IAC 2-8-4] [326 IAC 2-2] [326 IAC 4-2] [326 IAC 12] [40 CFR 60, Subpart AAAA] [40 CFR 60, Subpart CCCC] [40 CFR 63, Subpart EEE]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD), , 326 IAC 4-2 (Incinerators), and 326 IAC 12 (40 CFR 60, Subpart AAAA, 40 CFR 60, Subpart CCCC, and 40 CFR 63, Subpart EEE) not applicable, the Permittee shall comply with the following:

(a) Fuel Specifications

- (1) The Permittee shall only combust the following fuels in the associated emission unit(s):

Fuel	Emission Unit
Chipped clean wood/untreated wood pallets	Boiler B-1
Natural Gas	Boilers B-2 through B-5
No. 2 Fuel Oil	Boilers B-4 and B-5

- (2) The wood chips combusted in the wood-fired boiler (B-1) shall only be generated from "*clean wood*" and/or "*untreated wood pallets*".

For the purposes of this permit, the following definitions shall apply:

- (A) *Clean wood* consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. *Clean wood* does **not** include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).
- (B) *Untreated wood pallets* are pallets that meet the definition of clean cellulosic biomass, as defined under 40 CFR 241.2, and that have been processed to remove non-wood material that would inhibit combustion, such as screws or plastic fasteners. Clean cellulosic biomass, as defined under 40 CFR 241.2, is biomass that does not contain contaminants (all pollutants listed in Clean Air Act sections 112(b) or 129(a)(4) and the elements chlorine, fluorine, nitrogen, and sulfur) at concentrations not normally associated with virgin biomass materials.

Compliance with this requirement shall render the requirements of 326 IAC 4-2 (Incinerators), and 326 IAC 12 (40 CFR 60, Subpart AAAA - New Source Performance Standards for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 and 40 CFR 60, Subpart EEEE - New Source Performance Standards for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004 or for Which Modification or Reconstruction is commenced on or After June 16, 2006) not applicable.

- (3) The Higher Heating Value (HHV) of dry wood is 17.48 MMBtu/ton for wood with less than 20% moisture content, unless different HHV and percent (%) moisture content values are determined during the latest stack test; and
- (4) The sulfur content of the No. 2 distillate fuel oil, used in Boilers B-4 and B-5, shall not exceed 0.50% by weight.

(b) Fuel Usage Limitations

Emissions from Boilers B-1 through B-5 shall be limited as follows:

- (1) SO<sub>2</sub> emissions from Boilers B-1 through B-5, combined, shall not exceed 92.26 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

- (2) NOx emissions from Boilers B-1 through B-5, combined, shall not exceed 49.36 tons per twelve (12) consecutive month period, with compliance determined at the end of each month; and
- (3) CO emissions from Boilers B-1 through B-5, combined, shall not exceed 81.50 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

Compliance with these limits, combined with the potential to emit SO<sub>2</sub>, NO<sub>x</sub>, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of SO<sub>2</sub>, NO<sub>x</sub>, and CO to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 Startup, Shutdown, and Other Opacity Limits [326 IAC 5-1-3]

Pursuant to 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the following applies:

- (a) When building a new fire in a boiler, or shutting down a boiler, opacity may exceed the applicable limit established in 326 IAC 5-1-2 and stated in Section C - Opacity. However, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period. Opacity in excess of the applicable limit established in 326 IAC 5-1-2 shall not continue for more than two (2) six (6)-minute averaging periods in any twenty-four (24) hour period.
- (b) When removing ashes from the fuel bed or furnace in a boiler or blowing tubes, opacity may exceed the applicable limit established in 326 IAC 5-1-2 and stated in Section C - Opacity. However, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period and opacity in excess of the applicable limit shall not continue for more than one (1) six (6)-minute averaging periods in any sixty (60) minute period. The averaging periods shall not be permitted for more than three (3) six (6)-minute averaging periods in a twelve (12) hour period.
- (c) If this facility cannot meet the opacity limitations in (a) of this condition, the Permittee may submit a written request to IDEM, OAM, for a temporary alternative opacity limitation in accordance with 326 IAC 5-1-3(d). The Permittee must demonstrate that the alternative limit is needed and justifiable.

D.1.3 Particulate Emission Limits for Indirect Heating Units [326 IAC 6-2]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the following units shall be limited to Pt (pounds per MMBtu heat input), as follows:

Emission Unit	Unit ID	Construction/ Re-construction Date	Pt (lb/MMBtu)
Wood-Fired Boiler	B-1	2007	0.2415
Natural Gas-Fired Boiler	B-2	1998	0.2359
Natural Gas-Fired Boiler	B-3	1998	0.2359
Dual Fuel-Fired Boiler	B-4	1983	0.2453
Dual Fuel-Fired Boiler	B-5	1995	0.2340

These limitations are based on the following equation:

$Pt = 1.09$

$$Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input; and

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

**D.1.4 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 7-2-1]**

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- (a) Pursuant to 326 IAC 7-1.1, the sulfur dioxide (SO<sub>2</sub>) emissions from Boilers B-4 and B-5, each, shall not exceed five tenths (0.5) pounds per MMBtu when using distillate oil.
- (b) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

**D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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

**Compliance Determination Requirements**

**D.1.6 Fuel Specifications**

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- (a) Pursuant to 326 IAC 2-8-4, compliance with Condition D.1.1(a)(2) - Fuel Specifications for wood chips, shall be determined utilizing one of the following options:
  - (a) Providing supplier certification that each wood chip delivery meets the specifications under Condition D.1.1(a)(2); or
  - (b) Analyzing a sample of each wood chip delivery to determine if the wood chips meet the specifications under Condition D.1.1(a)(2), utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A determination of noncompliance pursuant to any of the methods specified above shall not be refuted by evidence of compliance pursuant to the other method.

- (b) Pursuant to 326 IAC 2-8-4, compliance with Condition D.1.1(a)(3) - Fuel Specifications for wood chips, shall be determined utilizing one or more of the following options:
  - (a) Providing supplier certification that each wood chip delivery meets the specifications under Condition D.1.1(a)(3); or
  - (b) Analyzing a sample of each wood chip delivery on-site to determine if the wood chips meet the percent (%) moisture content specifications under Condition D.1.1(a)(3), utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A determination of noncompliance pursuant to any of the methods specified above shall not be refuted by evidence of compliance pursuant to the other method.

#### D.1.7 Sulfur Dioxide (SO<sub>2</sub>) Emissions and Sulfur Content

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Compliance with the fuel limitations established in Conditions D.1.1(a)(4) and D.1.4, shall be determined utilizing one of the following options. Pursuant to 326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements) and 326 IAC 3-7-4 (Fuel oil sampling; analysis methods), compliance shall be demonstrated on a thirty (30) day calendar-month average.

- (a) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification;
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19;
  - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
  - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (c) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from Boilers B-4 and B-5, each, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

#### D.1.8 Fuel Usage

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In order to determine compliance with Condition D.1.1(b), the Permittee shall calculate the combined emissions from Boilers B-1 through B-5, using the following formulas:

(a) Sulfur Dioxide (SO<sub>2</sub>) Emission Calculation

$$S = \frac{[W(E_W)(HHV) + G(E_G) + O(E_O)]}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period;  
W = tons of wood chips (biomass) used in the last 12 months;  
G = million cubic feet of natural gas used in the last 12 months;  
O = gallons of No. 2 fuel oil used in the last 12 months;  
E<sub>W</sub> = 0.025 pounds per million Btu of dry wood;  
E<sub>G</sub> = 0.60 lb/million cubic feet of natural gas;  
E<sub>O</sub> = 0.071 lb/gallon of No. 2 fuel oil; and  
HHV = 17.48 MMBtu/ton of wood, unless different value is determined during the latest stack test.

(b) Nitrogen Oxides (NO<sub>x</sub>) Emission Calculation

$$N = \frac{[W(E_W)(HHV) + G(E_G) + O(E_O)]}{2,000 \text{ lbs/ton}}$$

where:

N = tons of nitrogen oxide emissions for a 12-month consecutive period;  
W = tons of wood chips (biomass) used in the last 12 months;  
G = million cubic feet of natural gas used in the last 12 months;  
O = gallons of No. 2 fuel oil used in the last 12 months;  
E<sub>W</sub> = 0.49 pounds per million Btu of dry wood;  
E<sub>G</sub> = 100 lb/million cubic feet of natural gas;

$E_O = 0.020$  lb/gallon of No. 2 fuel oil; and  
 $HHV = 17.48$  MMBtu/ton of wood, unless different value is determined during the latest stack test.

(c) Carbon Monoxide (CO) Emission Calculation

$$C = \frac{W(E_W)(HHV) + G(E_G) + O(E_O)}{2,000 \text{ lbs/ton}}$$

*where:*

C = tons of carbon monoxide emissions for a 12-month consecutive period;

W= tons of wood chips (biomass) used in the last 12 months;

G = million cubic feet of natural gas used in the last 12 months;

O = gallons of No. 2 fuel oil used in the last 12 months;

$E_W = 0.60$  pounds per million Btu of dry wood;

$E_G = 84$  pounds per million cubic feet of natural gas;

$E_O = 0.005$  pounds per gallon of No. 2 fuel oil; and

$HHV = 17.48$  MMBtu/ton of wood, unless different value is determined during the latest stack test.

D.1.9 Particulate Control (PM/PM10/PM2.5)

In order to comply with Condition D.1.3, the cyclone for particulate control shall be in operation and control emissions from the wood-fired boiler (B-1) at all times that the wood-fired boiler is in operation.

D.1.10 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11] [326 IAC 6-2]

In order to demonstrate compliance with Condition D.1.3, the Permittee shall perform PM emissions testing of the cyclone serving Wood-fired Boiler B-1 not later than five (5) years from the most recent valid compliance demonstration, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). A representative sample of the wood fuel shall be collected for each stack test run and analyzed to determine percent (%) moisture content and the higher heating value (HHV) expressed as MMBtu/ton. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

D.1.11 Visible Emissions Notations

- (a) Visible emission notations from the wood-fired boiler (B-1) stack exhaust (S-B-1) shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations from each of the dual fuel-fired boilers (B-4 and B-5) stack exhausts (S-B-4 and S-B-5), shall be performed once per day during normal daylight operations when combusting No. 2 fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An abnormal visible emission notation is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

#### D.1.12 Cyclone Failure Detection

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In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps shall be considered a deviation from this permit.

### **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### D.1.13 Record Keeping Requirements

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- (a) To document the compliance status with Conditions D.1.1, D.1.4, D.1.6, D.1.7, and D.1.8, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) below shall be taken monthly and shall be complete and sufficient to establish compliance with the limits established in Conditions D.1.1, D.1.4, D.1.6, D.1.7, and D.1.8.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Wood chip analysis results or wood supplier certification(s) that demonstrate that the wood chips meet the specifications established under Condition D.1.1(a)(2) as required by Condition D.1.6(a). If the wood supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:
    - (A) Wood supplier certifications;
    - (B) The name of the wood supplier; and
    - (C) A statement from the wood supplier that certifies that the wood chips meets the specifications under Condition D.1.1(a)(2).
  - (3) Heat content (Higher Heating Value (HHV)) of the wood combusted in Boiler B-1, as used in the compliance equations contained in Condition D.1.8, established to determine compliance with Condition D.1.1(b) ;
  - (4) Actual sulfur content and heat content for the No. 2 fuel oil combusted in Boilers B-4 and B-5 since the last compliance determination period;
  - (5) Actual fuel usage for each fuel combusted in Boilers B-1 through B-5 since the last compliance determination period;
  - (6) Equivalent sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO) emission rates for each fuel combusted in Boilers B-1 through B-5 since the last compliance determination period;

- (7) If the fuel supplier certification is used to demonstrate compliance with the limitations established under Conditions D.1.4 and D.1.1(a)(4) as required by Condition D.1.7, the following, as a minimum, shall be maintained:
  - (A) Fuel supplier certifications;
  - (B) The name of the fuel supplier; and
  - (C) A statement from the fuel supplier that certifies the sulfur content of the No. 2 fuel oil.
- (8) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted in Boilers B-1 through B-5 during the compliance determination period.
- (b) To document the compliance status with Condition D.1.11(a), the Permittee shall maintain records once per day of the visible emission notations of the wood-fired boiler (B-1) stack exhaust (S-B-1). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).
- (c) To document the compliance status with Condition D.1.11(b), the Permittee shall maintain records once per day of the visible emission notations of each of the dual fuel-fired boilers (B-4 and B-5) stack exhausts (S-B-4 and S-B-5). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day, or the boiler did not burn fuel oil that day).
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

#### D.1.14 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Conditions D.1.1(b) and D.1.8, shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do 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).



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

**Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Material Handling Operations**

- (f) One (1) wood chip handling and storage operation, identified as IR-WCHS, constructed in 2007, modified in 2008, and consisting of the following:
  - (1) One (1) truck unloading operation with a maximum throughput of 18,400 pounds of wood chips per hour.
  - (2) One (1) wood chip storage silo, with a maximum storage capacity of 220,000 pounds of wood chips (volumetric capacity 10,598 cubic feet), with emissions controlled by a baghouse.
  - (3) One (1) wood chip handling system with a maximum throughput of 3,000 pounds of wood chips per hour, with emissions controlled by a baghouse, including: six (6) augers, one (1) conveyor, one (1) bucket elevator, and one (1) metering bin.

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

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.2.1 Particulate Emission Limitations, For Manufacturing Processes [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2(e), particulate emissions from each of the units in the wood chip handling and storage operation (IR-WCHS), shall not exceed the corresponding pound per hour limitations listed in the table below:

Emission Unit	Process Weight Rate		326 IAC 6-3 Allowable Particulate Emission Rate (lbs/hour)
	(lbs/hr)	(tons/hr)	
Truck Unloading Operation	18,400.0	9.2	18.14
Storage Silo	220,000.0	110.0	52.24

These limitations are based on the following equations:

- (a) 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:

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

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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and } P = \text{process weight rate in tons per hour}$$

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

**Emissions Unit Descriptions [326 IAC 2-8-4(10)]:** Autobody Refinishing Operations

(h) One (1) autobody refinishing operation, identified as IR-ARO, constructed in 1961, using airless spray application methods to apply a maximum of 0.04 gallons of coatings per hour, and 3.08 gallons per day, to metal automobile bodies, uncontrolled, and exhausting inside the building;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected autobody refinishing operation.

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

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

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

Pursuant to 326 IAC 8-10-4, for refinishing operations subject to the requirements of 326 IAC 8-10, the Permittee shall comply with the following:

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

The VOC content shall not exceed the following limits:

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

For surface preparation products:

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

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

**D.3.2 Work Practice Standards [326 IAC 8-10-3] [326 IAC 8-10-5]**

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For refinishing operations subject to the requirements of 326 IAC 8-10, the Permittee shall comply with the work practice standards contained in 326 IAC 8-10-5 (included as Attachment E of this permit).

**D.3.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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

**Compliance Determination Requirements**

**D.3.4 Volatile Organic Compounds (VOC) [326 IAC 8-10-3] [326 IAC 8-10-7] [326 IAC 8-1-4]**

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

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16] [326 IAC 8-10-3] [326 IAC 8-10-5(d)(4)] [326 IAC 8-10-6(c)] [326 IAC 8-10-9]**

**D.3.5 Record Keeping Requirements [326 IAC 8-10-3] [326 IAC 8-10-5(d)(4)] [326 IAC 8-10-9]**

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- (a) For refinishing operations subject to the requirements of 326 IAC 8-10, the Permittee shall comply with the record keeping requirements contained in 326 IAC 8-10-9 (included as Attachment E of this permit).
- (b) To document the compliance status with Conditions D.3.1(a), and D.3.4, the Permittee shall keep the following records for the automobile refinishing operation:
  - (1) Purchase orders and invoices for each solvent containing material;
  - (2) Number of gallons of each solvent containing material used;
  - (3) VOC content (pounds/gallon) of each solvent containing material used;
  - (4) Amount of waste VOC manifested off-site; and
  - (5) Summation on a monthly basis of emissions of VOC.
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

**D.3.6 Reporting Requirements [326 IAC 8-10-3] [326 IAC 8-10-6(c)] [326 IAC 8-10-9(e)]**

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For refinishing operations subject to the requirements of 326 IAC 8-10, the Permittee shall comply with the reporting requirements contained in 326 IAC 8-10-6(c) and 326 IAC 8-10-9(e) (included as Attachment E of this permit). These reports shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

### **Emissions Unit Descriptions [326 IAC 2-8-4(10)]:** Degreasing Operations

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including five (5) cold cleaner degreaser units, collectively identified as the Parts Washers, constructed after July 1, 1990; [326 IAC 8-3-2] [326 IAC 8-3-8]

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

### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

#### D.4.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold cleaner degreaser control equipment and operating requirements):

- (a) The Permittee shall ensure the following control equipment and operating requirements are met:
- (1) Equip the degreaser with a cover.
  - (2) Equip the degreaser with a device for draining cleaned parts.
  - (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
  - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
  - (5) Provide a permanent, conspicuous label that lists the operating requirements in (a)(3), (a)(4), (a)(6), and (a)(7) of this condition.
  - (6) Store waste solvent only in closed containers.
  - (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.
- (b) The Permittee shall ensure the following additional control equipment and operating requirements are met:
- (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent used is insoluble in, and heavier than, water.
    - (C) A refrigerated chiller.
    - (D) Carbon adsorption.

- (E) An alternative system of demonstrated equivalent or better control as those outlined in (b)(1)(A) through (D) of this condition that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
- (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
- (3) If used, solvent spray:
  - (A) must be a solid, fluid stream; and
  - (B) shall be applied at a pressure that does not cause excessive splashing.

#### D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), on and after January 1, 2015, the Permittee shall not operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

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

#### D.4.3 Record Keeping Requirement [326 IAC 8-3-8]

- (a) Pursuant to 326 IAC 8-3-8(c)(2), on and after January 1, 2015, the following records shall be maintained for each purchase of cold cleaner degreaser solvent:
  - (1) The name and address of the solvent supplier.
  - (2) The date of purchase (or invoice/bill dates of contract servicer indicating service date).
  - (3) The type of solvent purchased.
  - (4) The total volume of the solvent purchased.
  - (5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) All records required by 326 IAC 8-3-8(c)(2) shall be:
  - (1) retained on-site or accessible electronically from the site for the most recent three (3) year period; and
  - (2) reasonably accessible for an additional two (2) year period.

## SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

### **Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Insignificant Boilers & Hot Water Heaters**

#### ***Pendleton Correctional Facility (IR)***

- (e) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
  - (6) One (1) natural gas-fired hot water heater, identified as B-29, constructed in 1985, with a maximum heat input capacity of 0.075 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]

#### ***Pendleton Juvenile Correctional Facility (PJCF)***

- (k) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
  - (1) Two (2) natural gas-fired hot water boilers, identified as B-6 and B-7, constructed in 2000, with a maximum heat input capacity of 1.44 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (2) Eight (8) natural gas-fired boilers, identified as B-8 through B-15, constructed in 2000, with a maximum heat input capacity of 0.25 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (3) Two (2) natural gas-fired boilers, identified as B-16 and B-17, constructed in 2000, with a maximum heat input capacity of 1.44 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (4) Two (2) natural gas-fired hot water boilers, identified as B-18 and B-19, constructed in 2000, with a maximum heat input capacity of 0.5 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (5) Six (6) natural gas-fired hot water heaters, identified as B-30 and B-32 through B-36, constructed in 2000, with a maximum heat input capacity of 1.26 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (6) One (1) natural gas-fired hot water heater, identified as B-31, constructed in 2000, with a maximum heat input capacity of 0.99 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (7) One (1) natural gas-fired hot water heater, identified as B-37, constructed in 2000, with a maximum heat input capacity of 1.8 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]

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

### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

#### **D.5.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2]**

Pursuant to 326 6-2-1(d), particulate emissions from the combustion of fuel for indirect heating from all facilities receiving permits to construct on or after September 21, 1983, shall be limited by section 326 IAC 6-2-4. Therefore, pursuant to 326 IAC 6-2-4, PM emissions from the indirect

heating units listed in the table below shall not exceed the corresponding pounds per MMBtu (lb/MMBtu) heat input limitations:

Emission Unit	Unit ID	Pt (lb/MMBtu)
PJCF: Services: Hot Water Boiler 1	B-6	0.2328
PJCF: Services: Hot Water Boiler 2	B-7	0.2328
PJCF: Building A: Boiler 1	B-8	0.2328
PJCF: Building A: Boiler 2	B-9	0.2328
PJCF: Building B: Boiler 1	B-10	0.2328
PJCF: Building B: Boiler 2	B-11	0.2328
PJCF: Building C: Boiler 1	B-12	0.2328
PJCF: Building C: Boiler 2	B-13	0.2328
PJCF: Building E: Boiler 1	B-14	0.2328
PJCF: Building E: Boiler 2	B-15	0.2328
PJCF: Programs: Boiler 1	B-16	0.2328
PJCF: Programs: Boiler 2	B-17	0.2328
PJCF: Administration: Hot Water Boiler 1	B-18	0.2328
PJCF: Administration: Hot Water Boiler 2	B-19	0.2328
IR: Garage: Water Heater 1	B-29	0.2453
PJCF: Services: Kitchen Hot Water Heater	B-30	0.2328
PJCF: Services: Med & Sleep Hot Water Heater	B-31	0.2328
PJCF: Services: Laundry Hot Water Heater	B-32	0.2328
PJCF: Building A: Water Heater 1	B-33	0.2328
PJCF: Building B: Water Heater 1	B-34	0.2328
PJCF: Building C: Water Heater 1	B-35	0.2328
PJCF: Building E: Water Heater 1	B-36	0.2328
PJCF: Programs: Water Heater 1	B-37	0.2328

These limitations are based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input; and

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

## SECTION E.1

## NSPS REQUIREMENTS

### Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Indirect Heating Units (Boilers)

- (a) One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (e) One (1) dual fuel-fired boiler, identified as Boiler B-5, constructed in 1995, with a maximum heat input capacity of 61.89 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-5.

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

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

### New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]

#### E.1.1 General Provisions Relating to New Source Performance Standards (NSPS) Requirements under 40 CFR Part 60 [326 IAC 12-1][40 CFR 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, except as otherwise specified in 40 CFR 60, Subpart Dc.

- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

and

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



E.1.2 New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc] [326 IAC 12]

---

The Permittee shall comply with the provisions of 40 CFR 60, Subpart Dc (included as Attachment A of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR 60, Subpart Dc, for the steam generating units identified in the Emissions Unit Descriptions box above, as follows:

- (a) The wood-fired boiler (B-1), as follows:
  - (1) 40 CFR 60.40c (a), (b), (c), (d);
  - (2) 40 CFR 60.41c; and
  - (3) 40 CFR 60.48c(a)(1), (a)(3), (g), and (i);
  
- (b) The dual fuel-fired boiler (B-5), when combusting No. 2 fuel oil, as follows:
  - (1) 40 CFR 60.40c (a), (b), (c), and (d);
  - (2) 40 CFR 60.41c;
  - (3) 40 CFR 60.42c(d), (g), (h)(1), and (i);
  - (4) 40 CFR 60.43c(c);
  - (5) 40 CFR 60.44c (a), (b), (d), (g), and (h);
  - (6) 40 CFR 60.46c(e); and
  - (7) 40 CFR 60.48c(a)(1), (a)(2), (a)(3), (a)(4), (b), (c), (d), (e)(1), (e)(2), (e)(3), (e)(4), (e)(5), (e)(6), (e)(11), (f)(1)(i), (f)(1)(ii), (f)(1)(iii), (g)(1), (g)(2), (g)(3), and (j).

## SECTION E.2

## NESHAP REQUIREMENTS

### Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Boilers

- (a) One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (d) One (1) dual fuel-fired boiler, identified as Boiler B-4, constructed in 1983, with a maximum heat input capacity of 41.00 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-4.

Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (e) One (1) dual fuel-fired boiler, identified as Boiler B-5, constructed in 1995, with a maximum heat input capacity of 61.89 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-5.

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

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

### National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements [326 IAC 2-8-4(1)]

#### E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A] [326 IAC 20-1]

- (a) Pursuant to §63.11130, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 8 of 40 CFR Part 63, Subpart JJJJJJ, and in accordance with the schedule in 40 CFR 63 Subpart JJJJJJ.

- (b) Pursuant to 40 CFR 63.12, the Permittee shall submit all required notifications and reports to:

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

and

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

E.2.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Industrial, Commercial, and Institutional Boilers Area Sources [40 CFR 63, Subpart JJJJJJ]

---

Pursuant to 40 CFR 63, Subpart JJJJJJ, the Permittee shall comply with the provisions of 40 CFR 63, Subpart JJJJJJ (6J) (included as Attachment B of this permit), for the boilers identified in the Emissions Unit Descriptions box above, with compliance dates of January 20, 2014 (*initial notification*) and March 21, 2014 (*energy assessment and tune-up*), as follows:

- |     |                                    |     |   |
|-----|------------------------------------|-----|---|
| (A) | 40 CFR 63.11193;                   | (J) | 40 CFR 63.11225(a)(1),(a)(2),(a)(4),(b)(1), |
| (B) | 40 CFR 63.11194(a)(1),(b),(e),(f); |     | (b)(2),(b)(3),(c)(1),(c)(2),                |
| (C) | 40 CFR 63.11196(a)(1),(a)(3);      | (K) | (c)(4),(c)(5),(d),(g);                      |
| (D) | 40 CFR 63.11200;                   | (L) | 40 CFR 63.11235;                            |
| (E) | 40 CFR 63.11201(b),(d);            | (M) | 40 CFR 63.11236;                            |
| (F) | 40 CFR 63.11205(a);                | (N) | 40 CFR 63.11237;                            |
| (G) | 40 CFR 63.11210(c),(h);            | (O) | Table 2; and                                |
| (H) | 40 CFR 63.11214(b),(c);            |     | Table 8                                     |
| (I) | 40 CFR 63.11223(a),(b);            |     |   |

**SECTION E.3**

**NESHAP REQUIREMENTS**

**Emissions Unit Descriptions [326 IAC 2-8-4(10)]:** Autobody Refinishing Operation

- (h) One (1) autobody refinishing operation, identified as IR-ARO, constructed in 1961, using airless spray application methods to apply a maximum of 0.04 gallons of coatings per hour to metal automobile bodies, uncontrolled, and exhausting inside the building;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected autobody refinishing operation.

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

**National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements [326 IAC 2-8-4(1)]**

**E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A] [326 IAC 20-1]**

- (a) Pursuant to §63.11130, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 1 of 40 CFR Part 63, Subpart HHHHHH, and in accordance with the schedule in 40 CFR 63 Subpart HHHHHH.

- (b) Pursuant to 40 CFR 63.12, the Permittee shall submit all required notifications and reports to:

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

and

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

**E.3.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources [40 CFR 63, Subpart HHHHHH]**

Pursuant to 40 CFR 63, Subpart HHHHHH, the Permittee shall comply with the provisions of 40 CFR 63, Subpart HHHHHH (6H) (included as Attachment C of this permit) for the autobody refinishing operation identified in the Emissions Unit Descriptions box above, with an initial compliance date of January 10, 2011, as follows:

- |                                 |   |
|---------------------------------|---|
| (A) 40 CFR 63.11169(b);         | (H) 40 CFR 63.11176(a);                     |
| (B) 40 CFR 63.11170(a)(2),(b);  | (I) 40 CFR 63.11177(a),(b),(c),(d),(g),(h); |
| (C) 40 CFR 63.11171(a),(b),(e); | (J) 40 CFR 63.11178;                        |
| (D) 40 CFR 63.11172(b);         | (K) 40 CFR 63.11179; and                    |
| (E) 40 CFR 63.11173(e),(g);     | (L) 40 CFR 63.11180;                        |
| (F) 40 CFR 63.11174;            | (M) Table 1.                                |
| (G) 40 CFR 63.11175;            |   |

**SECTION E.4**

**NESHAP REQUIREMENTS**

**Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Gasoline Dispensing Facilities (GDF)**

***Pendleton Correctional Facility (IR)***

- (c) A gasoline fuel transfer and dispensing operation, identified as IR-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 100 gallon moveable gasoline transfer tank, identified as IR-AST1, constructed in 1983, uncontrolled, and venting to the atmosphere;

Under 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, the gasoline fuel transfer and dispensing operation is considered an affected facility.

***Correctional Industrial Facility (CIF)***

- (h) A fuel dispensing station, consisting of:

- (1) A gasoline fuel transfer and dispensing operation, identified as CIF-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 5,000 gallon aboveground gasoline storage tank, identified as CIF-AST1, constructed in 2014, uncontrolled and venting to the atmosphere;

Under 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, the gasoline fuel transfer and dispensing operation is considered an affected facility.

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

**National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements [326 IAC 2-8-4(1)]**

**E.4.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A] [326 IAC 20-1]**

- (a) Pursuant to 40 CFR 63.11130, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, as specified in Table 3 of 40 CFR Part 63, Subpart CCCCCC in accordance with schedule in 40 CFR 63 Subpart CCCCCC

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

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

and

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

E.4.2 National Emissions Standards for Hazardous Air Pollutants for Source Category Gasoline Dispensing Facilities [40 CFR Part 63, Subpart CCCCCC]

---

Pursuant to 40 CFR Part 63, Subpart CCCCCC, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart CCCCCC (6C) (included as Attachment D of this permit) for the gasoline fuel transfer and dispensing operations identified in the Emissions Unit Descriptions box above, beginning on January 10, 2011, as follows:

- |     |                                    |      |                      |
|-----|------------------------------------|------|----------------------|
| (1) | 40 CFR 63.11110                    | (8)  | 40 CFR 63.11125(d);  |
| (2) | 40 CFR 63.11111(a), (b), (e), (f); | (9)  | 40 CFR 63.11126(b);  |
| (3) | 40 CFR 63.11112(a), (d);           | (10) | 40 CFR 63.11130;     |
| (4) | 40 CFR 63.11113(b), (c);           | (11) | 40 CFR 63.11131;     |
| (5) | 40 CFR 63.11115;                   | (12) | 40 CFR 63.11132; and |
| (6) | 40 CFR 63.11116;                   | (13) | Table 3              |
| (7) | 40 CFR 63.11124;                   |      |                      |

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Pendleton Correctional Facility  
Source Address: 4490 W. Reformatory Road, Pendleton, Indiana 46064  
FESOP Permit No.: F095-32852-00006

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Pendleton Correctional Facility  
Source Address: 4490 W. Reformatory Road, Pendleton, Indiana 46064  
FESOP Permit No.: F095-32852-00006

This form consists of 2 pages

Page 1 of 2

<input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and</li><li>• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16</li></ul>
---

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

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



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

Page 2 of 2

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

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

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

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

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

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

**FESOP Quarterly Report**

**Page 1 of 2**

Source Name: Pendleton Correctional Facility  
Source Address: 4490 W. Reformatory Road, Pendleton, Indiana 46064  
FESOP Permit No.: F095-32852-00006  
Facility: Boilers B-1 through B-5, combined.  
**Parameter: Fuel Usage / SO<sub>2</sub>, NO<sub>x</sub>, and CO emissions**  
Emission Limits: Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 92.26 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.8(a).  
Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 49.36 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.8(b).  
Carbon Monoxide (CO) emissions shall not exceed 81.50 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.8(c).

**FESOP Quarterly Report - Fuel Usage / SO<sub>2</sub>, NO<sub>x</sub>, CO, & CO<sub>2e</sub> emissions**

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

Month	Fuel Types (units)	Column 1	Column 2	Column 1 + Column 2	Equation Results		
		Usage This Month	Usage Previous 11 Months	Usage 12 Month Total	Sulfur Dioxide (SO <sub>2</sub> ) Emissions (tons per 12 months)	Nitrogen Oxides (NO <sub>x</sub> ) Emissions (tons per 12 months)	Carbon Monoxide (CO) Emissions (tons per 12 months)
	Wood chips (tons)						
	Natural Gas (million cubic feet)						
	No. 2 Fuel Oil (gallons)						
	Wood chips (tons)						
	Natural Gas (million cubic feet)						
	No. 2 Fuel Oil (gallons)						
	Wood chips (tons)						
	Natural Gas (million cubic feet)						
	No. 2 Fuel Oil (gallons)						

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

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

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

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

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

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Pendleton Correctional Facility  
Source Address: 4490 W. Reformatory Road, Pendleton, Indiana 46064  
FESOP Permit No.: F095-32852-00006

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

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

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

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

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

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

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

## Attachment A

### Federally Enforceable State Operating Permit (FESOP) Renewal

#### Title 40: Protection of Environment

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

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

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

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

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

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

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

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

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

(f) Any affected facility that meets the applicability requirements of and is subject to subpart AAAA or subpart CCCC of this part is not subject to this subpart.

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

(h) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO<sub>x</sub> standards under this subpart and the SO<sub>2</sub> standards under subpart J or subpart Ja of this part, as applicable.

(i) Temporary boilers are not subject to this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

### § 60.41c Definitions.

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

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

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

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

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

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

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

*Distillate oil* means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17), diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 60.17), kerosine, as defined by the American Society of Testing and Materials in ASTM D3699 (incorporated by reference, see § 60.17), biodiesel as defined by the American Society of Testing and Materials in ASTM D6751 (incorporated by reference, see § 60.17), or biodiesel blends as defined by the American Society of Testing and Materials in ASTM D7467 (incorporated by reference, see § 60.17).

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

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

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

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

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

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

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

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

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

*Natural gas* means:

- (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or
- (2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 60.17); or
- (3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

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

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

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

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

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

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



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

*Temporary boiler* means a steam generating unit that combusts natural gas or distillate oil with a potential SO<sub>2</sub> emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

- (1) The equipment is attached to a foundation.
- (2) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.
- (3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.
- (4) The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

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

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

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

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Where:

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

$K_a$  = 520 ng/J (1.2 lb/MMBtu);

$K_b$  = 260 ng/J (0.60 lb/MMBtu);

$K_c$  = 215 ng/J (0.50 lb/MMBtu);

$H_a$  = Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

$H_b$  = Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

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

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

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

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

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

(h) For affected facilities listed under paragraphs (h)(1), (2), (3), or (4) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f), as applicable.

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

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

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

(4) Other fuels-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

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

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this

section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

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

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

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

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

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

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

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

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph (c).

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

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

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

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

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

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

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

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

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

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

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

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

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

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

(1) An adjusted  $E_{ho}$  ( $E_{ho o}$ ) is used in Equation 19-19 of Method 19 of appendix A of this part to compute the adjusted  $E_{ao}$  ( $E_{ao o}$ ). The  $E_{ho o}$  is computed using the following formula:

$$E_{ho o} = \frac{E_{ho} - E_w(1 - X_1)}{X_1}$$

Where:

$E_{ho\ o}$  = Adjusted  $E_{ho}$  , ng/J (lb/MMBtu);

$E_{ho}$  = Hourly  $SO_2$  emission rate, ng/J (lb/MMBtu);

$E_w$  =  $SO_2$  concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value  $E_w$  for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure  $E_w$  if the owner or operator elects to assume  $E_w = 0$ .

$X_k$  = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

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

(f) Affected facilities subject to the percent reduction requirements under § 60.42c(a) or (b) shall determine compliance with the  $SO_2$  emission limits under § 60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential  $SO_2$  emission rate is computed using the following formula:

$$\%P_f = 100 \left( 1 - \frac{\%R_r}{100} \right) \left( 1 - \frac{\%R_f}{100} \right)$$

Where:

$\%P_s$  = Potential  $SO_2$  emission rate, in percent;

$\%R_g$  =  $SO_2$  removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_f$  =  $SO_2$  removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

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

(i) To compute the  $\%P_s$  , an adjusted  $\%R_g$  ( $\%R_{g\ o}$ ) is computed from  $E_{ao\ o}$  from paragraph (e)(1) of this section and an adjusted average  $SO_2$  inlet rate ( $E_{ai\ o}$ ) using the following formula:

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

Where:

$\%R_{g\ o}$  = Adjusted  $\%R_g$  , in percent;

$E_{ao\ o}$  = Adjusted  $E_{ao}$  , ng/J (lb/MMBtu); and

$E_{ai\ o}$  = Adjusted average  $SO_2$  inlet rate, ng/J (lb/MMBtu).

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

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

Where:

$E_{hi}$  = Adjusted  $E_{hi}$ , ng/J (lb/MMBtu);

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

$E_w$  =  $SO_2$  concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value  $E_w$  for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure  $E_w$  if the owner or operator elects to assume  $E_w = 0$ ; and

$X_k$  = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

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

(h) For affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the  $SO_2$  standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in § 60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the  $SO_2$  standards under § 60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid  $SO_2$  emissions data in calculating  $\%P_s$  and  $E_{ho}$  under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating  $\%P_s$  or  $E_{ho}$  pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

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

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

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

(2) Method 3A or 3B of appendix A-2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A-3 of this part or 17 of appendix A-6 of this part.

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

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

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

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

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

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

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

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

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

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

(8) Method 9 of appendix A-4 of this part shall be used for determining the opacity of stack emissions.

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

(c) In place of PM testing with Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

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

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



- (3) The monitor shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.
- (4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.
- (5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under § 60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.
- (6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.
- (7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.
- (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
- (ii) [Reserved]
- (8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part.
- (9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.
- (10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.
- (11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O<sub>2</sub> (or CO<sub>2</sub>) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.
- (i) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used; and
- (ii) For O<sub>2</sub> (or CO<sub>2</sub>), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.
- (12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.
- (13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.
- (14) As of January 1, 2012, and within 90 days after the date of completing each performance test, as defined in § 60.8, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit ( *i.e.*, reference method) data and performance test ( *i.e.*, compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see [http://www.epa.gov/ttn/chief/ert/ert\\_tool.html/](http://www.epa.gov/ttn/chief/ert/ert_tool.html/)) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

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

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

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

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

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

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

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

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

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

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

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

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

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when

calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

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

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

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

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

(a) Except as provided in paragraphs (c), (d), (e), and (f) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under § 60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in § 60.43c(c) that is not required to use a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A-4 of this part and the procedures in § 60.11 to demonstrate compliance with the applicable limit in § 60.43c by April 29, 2011, within 45 days of stopping use of an existing COMS, or within 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A-4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A-4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A-4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from

the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A-7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period ( *i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period ( *i.e.*, 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation ( *i.e.*, 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in § 60.45c(a)(8).

(ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

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

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions and that are subject to an opacity standard in § 60.43c(c) are not required to operate a COMS if they follow the applicable procedures in § 60.48c(f).

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

(e) Owners and operators of an affected facility that is subject to an opacity standard in § 60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub> , or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and

operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

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

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

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

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in § 60.13(h)(2).

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

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

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

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

(f) An owner or operator of an affected facility that is subject to an opacity standard in § 60.43c(c) is not required to operate a COMS provided that the affected facility meets the conditions in either paragraphs (f)(1), (2), or (3) of this section.

(1) The affected facility uses a fabric filter (baghouse) as the primary PM control device and, the owner or operator operates a bag leak detection system to monitor the performance of the fabric filter according to the requirements in section § 60.48Da of this part.

(2) The affected facility uses an ESP as the primary PM control device, and the owner or operator uses an ESP predictive model to monitor the performance of the ESP developed in accordance and operated according to the requirements in section § 60.48Da of this part.

(3) The affected facility burns only gaseous fuels and/or fuel oils that contain no greater than 0.5 weight percent sulfur, and the owner or operator operates the unit according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§ 60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under § 60.48c(c).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

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

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

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

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

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

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

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

(c) In addition to the applicable requirements in § 60.7, the owner or operator of an affected facility subject to the opacity limits in § 60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

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

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

(1) Calendar dates covered in the reporting period.

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

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

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

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

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

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

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

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

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

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

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

(1) For distillate oil:

(i) The name of the oil supplier;

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

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

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

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

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

(3) For coal:

(i) The name of the coal supplier;

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

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

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

(4) For other fuels:

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

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

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

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in § 60.48c(f) to demonstrate compliance with the SO<sub>2</sub> standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in § 60.42C to use fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.



(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

**Reference:**

The US EPA Electronic Code of Federal Regulations - 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units weblink:

<http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=33de0df5a9af803df2fa6dfd8985fc2a&rgn=div6&view=text&node=40:7.0.1.1.1.12&idno=40>

## Attachment B

### Federally Enforceable State Operating Permit (FESOP) Renewal

#### Electronic Code of Federal Regulations

#### Title 40: Protection of Environment

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

#### Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

Source: 76 FR 15591, Mar. 21, 2011, unless otherwise noted.

#### What This Subpart Covers

##### § 63.11193 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler as defined in § 63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in § 63.2, except as specified in § 63.11195.

##### § 63.11194 What is the affected source of this subpart?

(a) This subpart applies to each new, reconstructed, or existing affected source as defined in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers within a subcategory, as listed in § 63.11200 and defined in § 63.11237, located at an area source.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler within a subcategory, as listed in § 63.11200 and as defined in § 63.11237, located at an area source.

(b) An affected source is an existing source if you commenced construction or reconstruction of the affected source on or before June 4, 2010.

(c) An affected source is a new source if you commenced construction of the affected source after June 4, 2010, and the boiler meets the applicability criteria at the time you commence construction.

(d) An affected source is a reconstructed source if the boiler meets the reconstruction criteria as defined in § 63.2, you commenced reconstruction after June 4, 2010, and the boiler meets the applicability criteria at the time you commence reconstruction.

(e) An existing dual-fuel fired boiler meeting the definition of gas-fired boiler, as defined in § 63.11237, that meets the applicability requirements of this subpart after June 4, 2010 due to a fuel switch from gaseous fuel to solid fossil fuel, biomass, or liquid fuel is considered to be an existing source under this subpart as long as the boiler was designed to accommodate the alternate fuel.

(f) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or part 71 as a result of this subpart. You may, however, be required to obtain a title V permit due to another reason or reasons. See 40 CFR 70.3(a) and (b) or 71.3(a) and (b). Notwithstanding the

exemption from title V permitting for area sources under this subpart, you must continue to comply with the provisions of this subpart.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7506, Feb. 1, 2013]

**§ 63.11195 Are any boilers not subject to this subpart?**

The types of boilers listed in paragraphs (a) through (k) of this section are not subject to this subpart and to any requirements in this subpart.

(a) Any boiler specifically listed as, or included in the definition of, an affected source in another standard(s) under this part.

(b) Any boiler specifically listed as an affected source in another standard(s) established under section 129 of the Clean Air Act.

(c) A boiler required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by subpart EEE of this part (e.g., hazardous waste boilers), unless such units do not combust hazardous waste and combust comparable fuels.

(d) A boiler that is used specifically for research and development. This exemption does not include boilers that solely or primarily provide steam (or heat) to a process or for heating at a research and development facility. This exemption does not prohibit the use of the steam (or heat) generated from the boiler during research and development, however, the boiler must be concurrently and primarily engaged in research and development for the exemption to apply.

(e) A gas-fired boiler as defined in this subpart.

(f) A hot water heater as defined in this subpart.

(g) Any boiler that is used as a control device to comply with another subpart of this part, or part 60, part 61, or part 65 of this chapter provided that at least 50 percent of the average annual heat input during any 3 consecutive calendar years to the boiler is provided by regulated gas streams that are subject to another standard.

(h) Temporary boilers as defined in this subpart.

(i) Residential boilers as defined in this subpart.

(j) Electric boilers as defined in this subpart.

(k) An electric utility steam generating unit (EGU) covered by subpart UUUUU of this part.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7506, Feb. 1, 2013]

**§ 63.11196 What are my compliance dates?**

(a) If you own or operate an existing affected boiler, you must achieve compliance with the applicable provisions in this subpart as specified in paragraphs (a)(1) through (3) of this section.

(1) If the existing affected boiler is subject to a work practice or management practice standard of a tune-up, you must achieve compliance with the work practice or management practice standard no later than March 21, 2014.

(2) If the existing affected boiler is subject to emission limits, you must achieve compliance with the emission limits no later than March 21, 2014.

(3) If the existing affected boiler is subject to the energy assessment requirement, you must achieve compliance with the energy assessment requirement no later than March 21, 2014.

(b) If you start up a new affected source on or before May 20, 2011, you must achieve compliance with the provisions of this subpart no later than May 20, 2011.

(c) If you start up a new affected source after May 20, 2011, you must achieve compliance with the provisions of this subpart upon startup of your affected source.

(d) If you own or operate an industrial, commercial, or institutional boiler and would be subject to this subpart except for the exemption in § 63.11195(b) for commercial and industrial solid waste incineration units covered by 40 CFR part 60, subpart CCCC or subpart DDDD, and you cease combusting solid waste, you must be in compliance with this subpart on the effective date of the waste to fuel switch as specified in § 60.2145(a)(2) and (3) of subpart CCCC or § 60.2710(a)(2) and (3) of subpart DDDD.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7506, Feb. 1, 2013]

### **Emission Limits, Work Practice Standards, Emission Reduction Measures, and Management Practices**

#### **§ 63.11200 What are the subcategories of boilers?**

The subcategories of boilers, as defined in § 63.11237 are:

- (a) Coal.
- (b) Biomass.
- (c) Oil.
- (d) Seasonal boilers.
- (e) Oil-fired boilers with heat input capacity of equal to or less than 5 million British thermal units (Btu) per hour.
- (f) Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up.
- (g) Limited-use boilers.

[78 FR 7506, Feb. 1, 2013]

#### **§ 63.11201 What standards must I meet?**

- (a) You must comply with each emission limit specified in Table 1 to this subpart that applies to your boiler.
- (b) You must comply with each work practice standard, emission reduction measure, and management practice specified in Table 2 to this subpart that applies to your boiler. An energy assessment completed on or after January 1, 2008 that meets or is amended to meet the energy assessment requirements in Table 2 to this subpart satisfies the energy assessment requirement. A facility that operates under an energy management program established through energy management systems compatible with ISO 50001, that includes the affected units, also satisfies the energy assessment requirement.
- (c) You must comply with each operating limit specified in Table 3 to this subpart that applies to your boiler.
- (d) These standards apply at all times the affected boiler is operating, except during periods of startup and shutdown as defined in § 63.11237, during which time you must comply only with Table 2 to this subpart.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7506, Feb. 1, 2013]

## General Compliance Requirements

### § 63.11205 What are my general requirements for complying with this subpart?

(a) 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 that 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.

(b) You must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or a continuous monitoring system (CMS), including a continuous emission monitoring system (CEMS), a continuous opacity monitoring system (COMS), or a continuous parameter monitoring system (CPMS), where applicable. You may demonstrate compliance with the applicable mercury emission limit using fuel analysis if the emission rate calculated according to § 63.11211(c) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using stack testing.

(c) If you demonstrate compliance with any applicable emission limit through performance stack testing and subsequent compliance with operating limits (including the use of CPMS), with a CEMS, or with a COMS, you must develop a site-specific monitoring plan according to the requirements in paragraphs (c)(1) through (3) of this section for the use of any CEMS, COMS, or CPMS. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each CMS required in this section (including CEMS, COMS, or CPMS), you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses paragraphs (c)(1)(i) through (vi) of this section. You must submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation of your CMS. This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing CEMS or COMS operated according to the performance specifications under appendix B to part 60 of this chapter and that meet the requirements of § 63.11224.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

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

(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)(ii), (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) (as applicable in Table 8 to this subpart), (e)(1), and (e)(2)(i).

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

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

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7506, Feb. 1, 2013]

## Initial Compliance Requirements

### § 63.11210 What are my initial compliance requirements and by what date must I conduct them?

(a) You must demonstrate initial compliance with each emission limit specified in Table 1 to this subpart that applies to you by either conducting performance (stack) tests, as applicable, according to § 63.11212 and Table 4 to this subpart or, for mercury, conducting fuel analyses, as applicable, according to § 63.11213 and Table 5 to this subpart.

(b) For existing affected boilers that have applicable emission limits, you must demonstrate initial compliance with the applicable emission limits no later than 180 days after the compliance date that is specified in § 63.11196 and according to the applicable provisions in § 63.7(a)(2), except as provided in paragraph (j) of this section.

(c) For existing affected boilers that have applicable work practice standards, management practices, or emission reduction measures, you must demonstrate initial compliance no later than the compliance date that is specified in § 63.11196 and according to the applicable provisions in § 63.7(a)(2), except as provided in paragraph (j) of this section.

(d) For new or reconstructed affected boilers that have applicable emission limits, you must demonstrate initial compliance with the applicable emission limits no later than 180 days after March 21, 2011 or within 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(e) For new or reconstructed oil-fired boilers that combust only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM emission limit under this subpart and that do not use a post-combustion technology (except a wet scrubber) to reduce particulate matter (PM) or sulfur dioxide emissions, you are not subject to the PM emission limit in Table 1 of this subpart providing you monitor and record on a monthly basis the type of fuel combusted. If you intend to burn a new type of fuel or fuel mixture that does not meet the requirements of this paragraph, you must conduct a performance test within 60 days of burning the new fuel.

(f) For new or reconstructed affected boilers that have applicable work practice standards or management practices, you are not required to complete an initial performance tune-up, but you are required to complete the applicable biennial or 5-year tune-up as specified in § 63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source.

(g) For affected boilers that ceased burning solid waste consistent with § 63.11196(d) and for which your initial compliance date has passed, you must demonstrate compliance within 60 days of the effective date of the waste-to-fuel switch as specified in § 60.2145(a)(2) and (3) of subpart CCCC or § 60.2710(a)(2) and (3) of subpart DDDD. If you have not conducted your compliance demonstration for this subpart within the previous 12 months, you must complete all compliance demonstrations for this subpart before you commence or recommence combustion of solid waste.

(h) For affected boilers that switch fuels or make a physical change to the boiler that results in the applicability of a different subcategory within subpart JJJJJJ or the boiler becoming subject to subpart JJJJJJ, you must demonstrate compliance within 180 days of the effective date of the fuel switch or the physical change. Notification of such changes must be submitted according to § 63.11225(g).

(i) For boilers located at existing major sources of HAP that limit their potential to emit (e.g., make a physical change or take a permit limit) such that the existing major source becomes an area source, you must comply with the applicable provisions as specified in paragraphs (i)(1) through (3) of this section.

(1) Any such existing boiler at the existing source must demonstrate compliance with subpart JJJJJJ within 180 days of the later of March 21, 2014 or upon the existing major source commencing operation as an area source.

(2) Any new or reconstructed boiler at the existing source must demonstrate compliance with subpart JJJJJJ within 180 days of the later of March 21, 2011 or startup.

(3) Notification of such changes must be submitted according to § 63.11225(g).

(j) For existing affected boilers that have not operated between the effective date of the rule and the compliance date that is specified for your source in § 63.11196, you must comply with the applicable provisions as specified in paragraphs (j)(1) through (3) of this section.

(1) You must complete the initial compliance demonstration, if subject to the emission limits in Table 1 to this subpart, as specified in paragraphs (a) and (b) of this section, no later than 180 days after the re-start of the affected boiler and according to the applicable provisions in § 63.7(a)(2).

(2) You must complete the initial performance tune-up, if subject to the tune-up requirements in § 63.11223, by following the procedures described in § 63.11223(b) no later than 30 days after the re-start of the affected boiler.

(3) You must complete the one-time energy assessment, if subject to the energy assessment requirements specified in Table 2 to this subpart, no later than the compliance date specified in § 63.11196.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7507, Feb. 1, 2013]

### **§ 63.11211 How do I demonstrate initial compliance with the emission limits?**

(a) For affected boilers that demonstrate compliance with any of the emission limits of this subpart through performance (stack) testing, your initial compliance requirements include conducting performance tests according to § 63.11212 and Table 4 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler according to § 63.11213 and Table 5 to this subpart, establishing operating limits according to § 63.11222, Table 6 to this subpart and paragraph (b) of this section, as applicable, and conducting CMS performance evaluations according to § 63.11224. For affected boilers that burn a single type of fuel, you are exempted from the compliance requirements of conducting a fuel analysis for each type of fuel burned in your boiler. For purposes of this subpart, boilers that use a supplemental fuel only for startup, unit shutdown, and transient flame stability purposes still qualify as affected boilers that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under § 63.11213 and Table 5 to this subpart.

(b) You must establish parameter operating limits according to paragraphs (b)(1) through (4) of this section.

(1) For a wet scrubber, you must establish the minimum scrubber liquid flow rate and minimum scrubber pressure drop as defined in § 63.11237, as your operating limits during the three-run performance stack test. If you use a wet scrubber and you conduct separate performance stack tests for PM and mercury emissions, you must establish one set of minimum scrubber liquid flow rate and pressure drop operating limits. If you conduct multiple performance stack tests, you must set the minimum scrubber liquid flow rate and pressure drop operating limits at the highest minimum values established during the performance stack tests.

(2) For an electrostatic precipitator operated with a wet scrubber, you must establish the minimum total secondary electric power (secondary voltage and secondary current), as defined in § 63.11237, as your operating limits during the three-run performance stack test.

(3) For activated carbon injection, you must establish the minimum activated carbon injection rate, as defined in § 63.11237, as your operating limit during the three-run performance stack test.

(4) The operating limit for boilers with fabric filters that demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in § 63.11224, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

(c) If you elect to demonstrate compliance with an applicable mercury emission limit through fuel analysis, you must conduct fuel analyses according to § 63.11213 and Table 5 to this subpart and follow the procedures in paragraphs (c)(1) through (3) of this section.

(1) If you burn more than one fuel type, you must determine the fuel type, or mixture, you could burn in your boiler that would result in the maximum emission rates of mercury.

(2) You must determine the 90th percentile confidence level fuel mercury concentration of the composite samples analyzed for each fuel type using Equation 1 of this section.

$$P_{90} = \text{mean} + (\text{SD} * t) \quad (\text{Eq. 1})$$

Where:

$P_{90}$  = 90th percentile confidence level mercury concentration, in pounds per million Btu.

mean = Arithmetic average of the fuel mercury concentration in the fuel samples analyzed according to § 63.11213, in units of pounds per million Btu.

SD = Standard deviation of the mercury concentration in the fuel samples analyzed according to § 63.11213, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable mercury emission limit, the emission rate that you calculate for your boiler using Equation 1 of this section must be less than the applicable mercury emission limit.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7508, Feb. 1, 2013]

#### **§ 63.11212 What stack tests and procedures must I use for the performance tests?**

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in § 63.7(c).

(b) You must conduct each stack test according to the requirements in Table 4 to this subpart. Boilers that use a CEMS for carbon monoxide (CO) are exempt from the initial CO performance testing in Table 4 to this subpart and the oxygen concentration operating limit requirement specified in Table 3 to this subpart.

(c) You must conduct performance stack tests at the representative operating load conditions while burning the type of fuel or mixture of fuels that have the highest emissions potential for each regulated pollutant, and you must demonstrate initial compliance and establish your operating limits based on these performance stack tests. For subcategories with more than one emission limit, these requirements could result in the need to conduct more than one performance stack test. Following each performance stack test and until the next performance stack test, you must comply with the operating limit for operating load conditions specified in Table 3 to this subpart.

(d) You must conduct a minimum of three separate test runs for each performance stack test required in this section, as specified in § 63.7(e)(3) and in accordance with the provisions in Table 4 to this subpart.

(e) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A-7 to part 60 of this chapter to convert the measured PM concentrations and the measured mercury concentrations that result from the performance test to pounds per million Btu heat input emission rates.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7508, Feb. 1, 2013]

#### **§ 63.11213 What fuel analyses and procedures must I use for the performance tests?**

(a) You must conduct fuel analyses according to the procedures in paragraphs (b) and (c) of this section and Table 5 to this subpart, as applicable. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury in Table 1 of this subpart.



(b) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in Table 5 to this subpart. Each composite sample must consist of a minimum of three samples collected at approximately equal intervals during a test run period.

(c) Determine the concentration of mercury in the fuel in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 5 to this subpart.

**§ 63.11214 How do I demonstrate initial compliance with the work practice standard, emission reduction measures, and management practice?**

(a) If you own or operate an existing or new coal-fired boiler with a heat input capacity of less than 10 million Btu per hour, you must conduct a performance tune-up according to § 63.11223(b) and you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the boiler.

(b) If you own or operate an existing or new biomass-fired boiler or an existing or new oil-fired boiler, you must conduct a performance tune-up according to § 63.11223(b) and you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the boiler.

(c) If you own or operate an existing affected boiler with a heat input capacity of 10 million Btu per hour or greater, you must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 to this subpart and is an accurate depiction of your facility.

(d) If you own or operate a boiler subject to emission limits in Table 1 of this subpart, you must minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. You must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7508, Feb. 1, 2013]

**Continuous Compliance Requirements**

**§ 63.11220 When must I conduct subsequent performance tests or fuel analyses?**

(a) If your boiler has a heat input capacity of 10 million British thermal units per hour or greater, you must conduct all applicable performance (stack) tests according to § 63.11212 on a triennial basis, except as specified in paragraphs (b) through (d) of this section. Triennial performance tests must be completed no more than 37 months after the previous performance test.

(b) When demonstrating initial compliance with the PM emission limit, if your boiler's performance test results show that your PM emissions are equal to or less than half of the PM emission limit, you do not need to conduct further performance tests for PM but must continue to comply with all applicable operating limits and monitoring requirements. If your initial performance test results show that your PM emissions are greater than half of the PM emission limit, you must conduct subsequent performance tests as specified in paragraph (a) of this section.

(c) If you demonstrate compliance with the mercury emission limit based on fuel analysis, you must conduct a fuel analysis according to § 63.11213 for each type of fuel burned as specified in paragraphs (c)(1) and (2) of this section. If you plan to burn a new type of fuel or fuel mixture, you must conduct a fuel analysis before burning the new type of fuel or mixture in your boiler. You must recalculate the mercury emission rate using Equation 1 of § 63.11211. The recalculated mercury emission rate must be less than the applicable emission limit.

(1) When demonstrating initial compliance with the mercury emission limit, if the mercury constituents in the fuel or fuel mixture are measured to be equal to or less than half of the mercury emission limit, you do not need to conduct further fuel analysis sampling but must continue to comply with all applicable operating limits and monitoring requirements.

(2) When demonstrating initial compliance with the mercury emission limit, if the mercury constituents in the fuel or fuel mixture are greater than half of the mercury emission limit, you must conduct quarterly sampling.

(d) For existing affected boilers that have not operated since the previous compliance demonstration and more than 3 years have passed since the previous compliance demonstration, you must complete your subsequent compliance demonstration no later than 180 days after the re-start of the affected boiler.

[78 FR 7508, Feb. 1, 2013]

**§ 63.11221 Is there a minimum amount of monitoring data I must obtain?**

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.11205(c).

(b) You must operate the monitoring system and collect data at all required intervals at all times the affected source is operating and compliance is required, except for periods of monitoring system malfunctions or out-of-control periods (see § 63.8(c)(7) of this part), repairs associated with monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data collected during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or quality control activities in calculations used to report emissions or operating levels. Any such periods must be reported according to the requirements in § 63.11225. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan), failure to collect required data is a deviation of the monitoring requirements.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7508, Feb. 1, 2013]

**§ 63.11222 How do I demonstrate continuous compliance with the emission limits?**

(a) You must demonstrate continuous compliance with each emission limit and operating limit in Tables 1 and 3 to this subpart that applies to you according to the methods specified in Table 7 to this subpart and to paragraphs (a)(1) through (4) of this section.

(1) Following the date on which the initial compliance demonstration is completed or is required to be completed under §§ 63.7 and 63.11196, whichever date comes first, you must continuously monitor the operating parameters. Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests.

(2) If you have an applicable mercury or PM emission limit, you must keep records of the type and amount of all fuels burned in each boiler during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in lower emissions of mercury than the applicable emission limit (if you demonstrate compliance through fuel analysis), or result in lower fuel input of mercury than the maximum values calculated during the last performance stack test (if you demonstrate compliance through performance stack testing).

(3) If you have an applicable mercury emission limit and you plan to burn a new type of fuel, you must determine the mercury concentration for any new fuel type in units of pounds per million Btu, using the procedures in Equation 1 of § 63.11211 based on supplier data or your own fuel analysis, and meet the requirements in paragraphs (a)(3)(i) or (ii) of this section.

(i) The recalculated mercury emission rate must be less than the applicable emission limit.

(ii) If the mercury concentration is higher than mercury fuel input during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.11212 to demonstrate that the mercury emissions do not exceed the emission limit.

(4) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 and 3 to this subpart that apply to you. These instances are deviations from the emission limits in this subpart. These deviations must be reported according to the requirements in § 63.11225.

**§ 63.11223 How do I demonstrate continuous compliance with the work practice and management practice standards?**

(a) For affected sources subject to the work practice standard or the management practices of a tune-up, you must conduct a performance tune-up according to paragraph (b) of this section and keep records as required in § 63.11225(c) to demonstrate continuous compliance. You must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.

(b) Except as specified in paragraphs (c) through (f) of this section, you must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of this section. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler.

(1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.

(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.

(4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.

(5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

(6) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (b)(6)(i) through (iii) of this section.

(i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.

(ii) A description of any corrective actions taken as a part of the tune-up of the boiler.

(iii) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

(7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

(c) Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up must conduct a tune-up of the boiler every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed boiler with an oxygen trim system, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.

(d) Seasonal boilers must conduct a tune-up every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed seasonal boiler, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. Seasonal boilers are not subject to the emission limits in Table 1 to this subpart or the operating limits in Table 3 to this subpart.

(e) Oil-fired boilers with a heat input capacity of equal to or less than 5 million Btu per hour must conduct a tune-up every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed oil-fired boiler with a heat input capacity of equal to or less than 5 million Btu per hour, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.

(f) Limited-use boilers must conduct a tune-up every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed limited-use boiler, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. Limited-use boilers are not subject to the emission limits in Table 1 to this subpart, the energy assessment requirements in Table 2 to this subpart, or the operating limits in Table 3 to this subpart.

(g) If you own or operate a boiler subject to emission limits in Table 1 of this subpart, you must minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. You must submit a signed statement in the Notification

of Compliance Status report that indicates that you conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7509, Feb. 1, 2013]

**§ 63.11224 What are my monitoring, installation, operation, and maintenance requirements?**

(a) If your boiler is subject to a CO emission limit in Table 1 to this subpart, you must either install, operate, and maintain a CEMS for CO and oxygen according to the procedures in paragraphs (a)(1) through (6) of this section, or install, calibrate, operate, and maintain an oxygen analyzer system, as defined in § 63.11237, according to the manufacturer's recommendations and paragraphs (a)(7) and (d) of this section, as applicable, by the compliance date specified in § 63.11196. Where a certified CO CEMS is used, the CO level shall be monitored at the outlet of the boiler, after any add-on controls or flue gas recirculation system and before release to the atmosphere. Boilers that use a CO CEMS are exempt from the initial CO performance testing and oxygen concentration operating limit requirements specified in § 63.11211(a) of this subpart. Oxygen monitors and oxygen trim systems must be installed to monitor oxygen in the boiler flue gas, boiler firebox, or other appropriate intermediate location.

(1) Each CO CEMS must be installed, operated, and maintained according to the applicable procedures under Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, and each oxygen CEMS must be installed, operated, and maintained according to Performance Specification 3 at 40 CFR part 60, appendix B. Both the CO and oxygen CEMS must also be installed, operated, and maintained according to the site-specific monitoring plan developed according to paragraph (c) of this section.

(2) You must conduct a performance evaluation of each CEMS according to the requirements in § 63.8(e) and according to Performance Specifications 3 and 4, 4A, or 4B at 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) every 15 minutes. You must have CEMS data values from a minimum of four successive cycles of operation representing each of the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CEMS calibration, quality assurance, or maintenance activities are being performed, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in § 63.8(g)(2).

(5) You must calculate hourly averages, corrected to 3 percent oxygen, from each hour of CO CEMS data in parts per million CO concentrations and determine the 10-day rolling average of all recorded readings, except as provided in § 63.11221(c). Calculate a 10-day rolling average from all of the hourly averages collected for the 10-day operating period using Equation 2 of this section.

$$\text{10-day average} = \frac{\sum_{i=1}^n Hpvi}{n} \quad (\text{Eq. 2})$$

Where:

Hpvi = the hourly parameter value for hour i

n = the number of valid hourly parameter values collected over 10 boiler operating days

(6) For purposes of collecting CO data, you must operate the CO CEMS as specified in § 63.11221(b). For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, except that you must exclude certain data as specified in § 63.11221(c). Periods when CO data are unavailable may constitute monitoring deviations as specified in § 63.11221(d).

(7) You must operate the oxygen analyzer system at or above the minimum oxygen level that is established as the operating limit according to Table 6 to this subpart when firing the fuel or fuel mixture utilized during the most recent CO performance stack test. Operation of oxygen trim systems to meet these requirements shall not be done in a manner which compromises furnace safety.

(b) If you are using a control device to comply with the emission limits specified in Table 1 to this subpart, you must maintain each operating limit in Table 3 to this subpart that applies to your boiler as specified in Table 7 to this subpart. If you use a control device not covered in Table 3 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under § 63.8(f).

(c) If you demonstrate compliance with any applicable emission limit through stack testing and subsequent compliance with operating limits, you must develop a site-specific monitoring plan according to the requirements in paragraphs (c)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each CMS required in this section, you must develop, and submit to the EPA Administrator for approval upon request, a site-specific monitoring plan that addresses paragraphs (c)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan (if requested) at least 60 days before your initial performance evaluation of your CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected unit such that the measurement is representative of control of the exhaust emissions ( e.g., on or downstream of the last control device).

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.

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

(2) In your site-specific monitoring plan, you must also address paragraphs (c)(2)(i) through (iii) of this section.

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

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d).

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

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

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

(d) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each CPMS according to the procedures in paragraphs (d)(1) through (4) of this section.

(1) The CPMS must complete a minimum of one cycle of operation every 15 minutes. You must have data values from a minimum of four successive cycles of operation representing each of the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed, to have a valid hour of data.

(2) You must calculate hourly arithmetic averages from each hour of CPMS data in units of the operating limit and determine the 30-day rolling average of all recorded readings, except as provided in § 63.11221(c). Calculate a 30-day rolling average from all of the hourly averages collected for the 30-day operating period using Equation 3 of this section.

$$\text{30-day average} = \frac{\sum_{i=1}^n Hpvi}{n} \quad \text{[Eq. 3]}$$

Where:

$H_{pvi}$  = the hourly parameter value for hour  $i$

$n$  = the number of valid hourly parameter values collected over 30 boiler operating days

(3) For purposes of collecting data, you must operate the CPMS as specified in § 63.11221(b). For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, except that you must exclude certain data as specified in § 63.11221(c). Periods when CPMS data are unavailable may constitute monitoring deviations as specified in § 63.11221(d).

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

(e) If you have an applicable opacity operating limit under this rule, you must install, operate, certify and maintain each COMS according to the procedures in paragraphs (e)(1) through (8) of this section by the compliance date specified in § 63.11196.

(1) Each COMS must be installed, operated, and maintained according to Performance Specification 1 of 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each COMS according to the requirements in § 63.8 and according to Performance Specification 1 of 40 CFR part 60, appendix B.

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in § 63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in § 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of § 63.8(e). You must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

(7) You must calculate and record 6-minute averages from the opacity monitoring data and determine and record the daily block average of recorded readings, except as provided in § 63.11221(c).

(8) For purposes of collecting opacity data, you must operate the COMS as specified in § 63.11221(b). For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, except that you must exclude certain data as specified in § 63.11221(c). Periods when COMS data are unavailable may constitute monitoring deviations as specified in § 63.11221(d).

(f) If you use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate the bag leak detection system as specified in paragraphs (f)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with EPA-454/R-98-015 (incorporated by reference, see § 63.14).

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

- (4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.
- (5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
- (6) The bag leak detection system must be equipped with an audible or visual alarm system that will activate automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard or seen by plant operating personnel.
- (7) For positive pressure fabric filter systems that do not duct all compartments or cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.
- (8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7510, Feb. 1, 2013]

**§ 63.11225 What are my notification, reporting, and recordkeeping requirements?**

- (a) You must submit the notifications specified in paragraphs (a)(1) through (5) of this section to the administrator.
  - (1) You must submit all of the notifications in §§ 63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply to you by the dates specified in those sections except as specified in paragraphs (a)(2) and (4) of this section.
  - (2) An Initial Notification must be submitted no later than January 20, 2014 or within 120 days after the source becomes subject to the standard.
  - (3) If you are required to conduct a performance stack test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin.
  - (4) You must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in § 63.11196 unless you must conduct a performance stack test. If you must conduct a performance stack test, you must submit the Notification of Compliance Status within 60 days of completing the performance stack test. You must submit the Notification of Compliance Status in accordance with paragraphs (a)(4)(i) and (vi) of this section. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs (a)(4)(i) through (v) of this section, as applicable, and signed by a responsible official.
    - (i) You must submit the information required in § 63.9(h)(2), except the information listed in § 63.9(h)(2)(i)(B), (D), (E), and (F). If you conduct any performance tests or CMS performance evaluations, you must submit that data as specified in paragraph (e) of this section. If you conduct any opacity or visible emission observations, or other monitoring procedures or methods, you must submit that data to the Administrator at the appropriate address listed in § 63.13.
    - (ii) "This facility complies with the requirements in § 63.11214 to conduct an initial tune-up of the boiler."
    - (iii) "This facility has had an energy assessment performed according to § 63.11214(c)."
    - (iv) For units that install bag leak detection systems: "This facility complies with the requirements in § 63.11224(f)."
    - (v) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit."
    - (vi) The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ( [www.epa.gov/cdx](http://www.epa.gov/cdx) ). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in § 63.13.



(5) If you are using data from a previously conducted emission test to serve as documentation of conformance with the emission standards and operating limits of this subpart, you must include in the Notification of Compliance Status the date of the test and a summary of the results, not a complete test report, relative to this subpart.

(b) You must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of this section. You must submit the report by March 15 if you had any instance described by paragraph (b)(3) of this section. For boilers that are subject only to a requirement to conduct a biennial or 5-year tune-up according to § 63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial or 5-year compliance report as specified in paragraphs (b)(1) and (2) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) "This facility complies with the requirements in § 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."

(ii) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit."

(iii) "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.

(4) The total fuel use by each affected boiler subject to an emission limit, for each calendar month within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by you or EPA through a petition process to be a non-waste under § 241.3(c), whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of § 241.3, and the total fuel usage amount with units of measure.

(c) You must maintain the records specified in paragraphs (c)(1) through (7) of this section.

(1) As required in § 63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

(2) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by § 63.11214 and § 63.11223 as specified in paragraphs (c)(2)(i) through (vi) of this section.

(i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

(ii) For operating units that combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to § 241.3(b)(1) of this chapter, you must keep a record which documents how the secondary material meets each of the legitimacy criteria under § 241.3(d)(1). If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to § 241.3(b)(4) of this chapter, you must keep records as to how the operations that produced the fuel satisfies the definition of processing in § 241.2 and each of the legitimacy criteria in § 241.3(d)(1) of this chapter. If the fuel received a non-waste determination pursuant to the petition process submitted under § 241.3(c) of this chapter, you must keep a record that documents how the fuel satisfies the

requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per § 241.4, you must keep records documenting that the material is a listed non-waste under § 241.4(a).

(iii) For each boiler required to conduct an energy assessment, you must keep a copy of the energy assessment report.

(iv) For each boiler subject to an emission limit in Table 1 to this subpart, you must also keep records of monthly fuel use by each boiler, including the type(s) of fuel and amount(s) used.

(v) For each boiler that meets the definition of seasonal boiler, you must keep records of days of operation per year.

(vi) For each boiler that meets the definition of limited-use boiler, you must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and records of fuel use for the days the boiler is operating.

(3) For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation that were done to demonstrate compliance with the mercury emission limits. Supporting documentation should include results of any fuel analyses. You can use the results from one fuel analysis for multiple boilers provided they are all burning the same fuel type.

(4) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in § 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(6) You must keep the records of all inspection and monitoring data required by §§ 63.11221 and 63.11222, and the information identified in paragraphs (c)(6)(i) through (vi) of this section for each required inspection or monitoring.

(i) The date, place, and time of the monitoring event.

(ii) Person conducting the monitoring.

(iii) Technique or method used.

(iv) Operating conditions during the activity.

(v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation.

(vi) Maintenance or corrective action taken (if applicable).

(7) If you use a bag leak detection system, you must keep the records specified in paragraphs (c)(7)(i) through (iii) of this section.

(i) Records of the bag leak detection system output.

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings.

(iii) The date and time of all bag leak detection system alarms, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(d) Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

(e)(1) Within 60 days after the date of completing each performance test (defined in § 63.2) as required by this subpart you must submit the results of the performance tests, including any associated fuel analyses, required by this subpart to EPA's WebFIRE database by using CEDRI that is accessed through EPA's CDX ([www.epa.gov/cdx](http://www.epa.gov/cdx)). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator at the appropriate address listed in § 63.13.

(2) Within 60 days after the date of completing each CEMS performance evaluation test as defined in § 63.2, you must submit relative accuracy test audit (RATA) data to EPA's CDX by using CEDRI in accordance with paragraph (e)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation in paper submissions to the Administrator at the appropriate address listed in § 63.13.

(f) If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste. The notification must identify:

(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will commence burning solid waste, and the date of the notice.

(2) The currently applicable subcategory under this subpart.

(3) The date on which you became subject to the currently applicable emission limits.

(4) The date upon which you will commence combusting solid waste.

(g) If you have switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within subpart JJJJJJ, in the boiler becoming subject to subpart JJJJJJ, or in the boiler switching out of subpart JJJJJJ due to a change to 100 percent natural gas, or you have taken a permit limit that resulted in you being subject to subpart JJJJJJ, you must provide notice of the date upon which you switched fuels, made the physical change, or took a permit limit within 30 days of the change. The notification must identify:

(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, were physically changed, or took a permit limit, and the date of the notice.

(2) The date upon which the fuel switch, physical change, or permit limit occurred.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7511, Feb. 1, 2013] .

**§ 63.11226 Affirmative defense for violation of emission standards during malfunction.**

In response to an action to enforce the standards set forth in § 63.11201 you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 63.2.

Appropriate penalties may be assessed if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) *Assertion of affirmative defense.* To establish the affirmative defense in any action to enforce such a standard, you must timely meet the reporting requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The violation:

(i) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when a violation occurred; and

(3) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(4) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(b) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

[78 FR 7513, Feb. 1, 2013]

## Other Requirements and Information

### § 63.11235 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.

### § 63.11236 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by EPA or an administrator such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your state, local, or tribal agency.

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

(c) The authorities that cannot be delegated to state, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of an alternative non-opacity emission standard and work practice standards in § 63.11223(a).

(2) Approval of alternative opacity emission standard under § 63.6(h)(9).

(3) Approval of major change to test methods under § 63.7(e)(2)(ii) and (f). A “major change to test method” is defined in § 63.90.

(4) Approval of a major change to monitoring under § 63.8(f). A “major change to monitoring” is defined in § 63.90.

(5) Approval of major change to recordkeeping and reporting under § 63.10(f). A “major change to recordkeeping/reporting” is defined in § 63.90.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7513, Feb. 1, 2013]

### § 63.11237 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2 (the General Provisions), and in this section as follows:

*10-day rolling average* means the arithmetic mean of all valid hours of data from 10 successive operating days, except for periods of startup and shutdown and periods when the unit is not operating.

*30-day rolling average* means the arithmetic mean of all valid hours of data from 30 successive operating days, except for periods of startup and shutdown and periods when the unit is not operating.

*Affirmative defense* means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

*Annual heat input* means the heat input for the 12 months preceding the compliance demonstration.

*Bag leak detection system* means a group of instruments that are capable of monitoring particulate matter loadings in the exhaust of a fabric filter ( *i.e.*, baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

*Biodiesel* means a mono-alkyl ester derived from biomass and conforming to ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels (incorporated by reference, see § 63.14).

*Biomass* means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue and wood products (e.g., trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings); animal manure, including litter and other bedding materials; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff ( e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds. This definition of biomass is not intended to suggest that these materials are or are not solid waste.

*Biomass subcategory* includes any boiler that burns any biomass and is not in the coal subcategory.

*Boiler* means an enclosed device using controlled flame combustion in which water is heated to recover thermal energy in the form of steam and/or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers, process heaters, and autoclaves are excluded from the definition of *Boiler*.

*Boiler system* means the boiler and associated components, such as, feedwater systems, combustion air systems, fuel systems (including burners), blowdown systems, combustion control systems, steam systems, and condensate return systems, directly connected to and serving the energy use systems.

*Calendar year* means the period between January 1 and December 31, inclusive, for a given year.

*Coal* means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388 (incorporated by reference, see § 63.14), coal refuse, and petroleum coke. For the purposes of this subpart, this definition of “coal” includes synthetic fuels derived from coal including, but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures. Coal derived gases are excluded from this definition.

*Coal subcategory* includes any boiler that burns any solid fossil fuel and no more than 15 percent biomass on an annual heat input basis.

*Commercial boiler* means a boiler used in commercial establishments such as hotels, restaurants, and laundries to provide electricity, steam, and/or hot water.

*Common stack* means the exhaust of emissions from two or more affected units through a single flue. Affected units with a common stack may each have separate air pollution control systems located before the common stack, or may have a single air pollution control system located after the exhausts come together in a single flue.

*Daily block average* means the arithmetic mean of all valid emission concentrations or parameter levels recorded when a unit is operating measured over the 24-hour period from 12 a.m. (midnight) to 12 a.m. (midnight), except for periods of startup and shutdown and periods when the unit is not operating.

*Deviation* (1) Means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any applicable requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(ii) 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.

(2) A deviation is not always a violation.

*Distillate oil* means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see § 63.14) or diesel fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 63.14), kerosene, and biodiesel as defined by the American Society of Testing and Materials in ASTM D6751-11b (incorporated by reference, see § 63.14).

*Dry scrubber* means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems used as control devices in fluidized bed boilers and process heaters are included in this definition. A dry scrubber is a dry control system.

*Electric boiler* means a boiler in which electric heating serves as the source of heat. Electric boilers that burn gaseous or liquid fuel during periods of electrical power curtailment or failure are included in this definition.

*Electric utility steam generating unit (EGU)* means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit. To be “capable of combusting” fossil fuels, an EGU would need to have these fuels allowed in their operating permits and have the appropriate fuel handling facilities on-site or otherwise available ( e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired EGU means any EGU that fired fossil fuel for more than 10.0 percent of the average annual heat input in any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after April 16, 2015.

*Electrostatic precipitator (ESP)* means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper. An electrostatic precipitator is usually a dry control system.

*Energy assessment* means the following for the emission units covered by this subpart:

(1) The energy assessment for facilities with affected boilers with less than 0.3 trillion Btu per year (TBtu/year) heat input capacity will be 8 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 50 percent of the affected boiler(s) energy ( e.g., steam, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing an 8-hour energy assessment.

(2) The energy assessment for facilities with affected boilers with 0.3 to 1.0 TBtu/year heat input capacity will be 24 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 33 percent of the affected boiler(s) energy ( e.g., steam, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing a 24-hour energy assessment.

(3) The energy assessment for facilities with affected boilers with greater than 1.0 TBtu/year heat input capacity will be up to 24 on-site technical labor hours in length for the first TBtu/year plus 8 on-site technical labor hours for every additional 1.0 TBtu/year not to exceed 160 on-site technical hours, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 20 percent of the affected boiler(s) energy ( e.g., steam, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities.

(4) The on-site energy use system(s) serving as the basis for the percent of affected boiler(s) energy production, as applicable, in paragraphs (1), (2), and (3) of this definition may be segmented by production area or energy use area as most logical and applicable to the specific facility being assessed ( e.g., product X manufacturing area; product Y drying area; Building Z).

*Energy management program* means a program that includes a set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility. Facilities may establish their program through energy management systems compatible with ISO 50001.

*Energy use system* (1) Includes the following systems located on the site of the affected boiler that use energy provided by the boiler:

(i) Process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air conditioning systems; hot water systems; building envelop; and lighting; or

(ii) Other systems that use steam, hot water, process heat, or electricity, provided by the affected boiler.

(2) Energy use systems are only those systems using energy clearly produced by affected boilers.

*Equivalent* means the following only as this term is used in Table 5 to this subpart:

(1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or

EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.

(2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.

(3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.

(4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.

(5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining mercury using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing this metal. On the other hand, if metals analysis is done on an "as received" basis, a separate aliquot can be dried to determine moisture content and the mercury concentration mathematically adjusted to a dry basis.

(6) An equivalent mercury determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for mercury and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 5 to this subpart for the same purpose.

*Fabric filter* means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse. A fabric filter is a dry control system.

*Federally enforceable* means all limitations and conditions that are enforceable by the EPA Administrator, including, but not limited to, the requirements of 40 CFR parts 60, 61, 63, and 65, requirements within any applicable state implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*Fluidized bed boiler* means a boiler utilizing a fluidized bed combustion process that is not a pulverized coal boiler.

*Fluidized bed combustion* means a process where a fuel is burned in a bed of granulated particles, which are maintained in a mobile suspension by the forward flow of air and combustion products.

*Fuel type* means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, sub-bituminous coal, lignite, anthracite, biomass, distillate oil, residual oil. Individual fuel types received from different suppliers are not considered new fuel types.



*Gaseous fuels* includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, hydrogen, and biogas.

*Gas-fired boiler* includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

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

*Hot water heater* means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous, liquid, or biomass fuel and hot water is withdrawn for use external to the vessel. Hot water boilers ( *i.e.*, not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour are included in this definition. The 120 U.S. gallon capacity threshold to be considered a hot water heater is independent of the 1.6 million Btu per hour heat input capacity threshold for hot water boilers. Hot water heater also means a tankless unit that provides on-demand hot water.

*Hourly average* means the arithmetic average of at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

*Industrial boiler* means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

*Institutional boiler* means a boiler used in institutional establishments such as, but not limited to, medical centers, nursing homes, research centers, institutions of higher education, elementary and secondary schools, libraries, religious establishments, and governmental buildings to provide electricity, steam, and/or hot water.

*Limited-use boiler* means any boiler that burns any amount of solid or liquid fuels and has a federally enforceable average annual capacity factor of no more than 10 percent.

*Liquid fuel* includes, but is not limited to, distillate oil, residual oil, any form of liquid fuel derived from petroleum, used oil meeting the specification in 40 CFR 279.11, liquid biofuels, biodiesel, and vegetable oil, and comparable fuels as defined under 40 CFR 261.38.

*Load fraction* means the actual heat input of a boiler divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction ( *e.g.*, for 50 percent load the load fraction is 0.5).

*Minimum activated carbon injection rate* means load fraction multiplied by the lowest hourly average activated carbon injection rate measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

*Minimum oxygen level* means the lowest hourly average oxygen level measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable carbon monoxide emission limit.

*Minimum scrubber liquid flow rate* means the lowest hourly average scrubber liquid flow rate ( *e.g.*, to the particulate matter scrubber) measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

*Minimum scrubber pressure drop* means the lowest hourly average scrubber pressure drop measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

*Minimum total secondary electric power* means the lowest hourly average total secondary electric power determined from the values of secondary voltage and secondary current to the electrostatic precipitator measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limits.

*Natural gas* means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 63.14); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions ( *i.e.*, a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals). Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot); or

(4) Propane or propane-derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure  $C_3H_8$ .

*Oil subcategory* includes any boiler that burns any liquid fuel and is not in either the biomass or coal subcategories. Gas-fired boilers that burn liquid fuel only during periods of gas curtailment, gas supply interruptions, startups, or for periodic testing are not included in this definition. Periodic testing on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

*Opacity* means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

*Operating day* means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the boiler unit. It is not necessary for fuel to be combusted for the entire 24-hour period.

*Oxygen analyzer system* means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler flue gas, boiler firebox, or other appropriate intermediate location. This definition includes oxygen trim systems.

*Oxygen trim system* means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or carbon monoxide monitor that automatically provides a feedback signal to the combustion air controller.

*Particulate matter (PM)* means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an approved alternative method.

*Performance testing* means the collection of data resulting from the execution of a test method used (either by stack testing or fuel analysis) to demonstrate compliance with a relevant emission standard.

*Period of gas curtailment or supply interruption* means a period of time during which the supply of gaseous fuel to an affected boiler is restricted or halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility.

*Process heater* means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. Process heaters are devices in which the

combustion gases do not come into direct contact with process materials. Process heaters include units that heat water/water mixtures for pool heating, sidewalk heating, cooling tower water heating, power washing, or oil heating.

*Qualified energy assessor* means:

(1) Someone who has demonstrated capabilities to evaluate energy savings opportunities for steam generation and major energy using systems, including, but not limited to:

(i) Boiler combustion management.

(ii) Boiler thermal energy recovery, including

(A) Conventional feed water economizer,

(B) Conventional combustion air preheater, and

(C) Condensing economizer.

(iii) Boiler blowdown thermal energy recovery.

(iv) Primary energy resource selection, including

(A) Fuel (primary energy source) switching, and

(B) Applied steam energy versus direct-fired energy versus electricity.

(v) Insulation issues.

(vi) Steam trap and steam leak management.

(vii) Condensate recovery.

(viii) Steam end-use management.

(2) Capabilities and knowledge includes, but is not limited to:

(i) Background, experience, and recognized abilities to perform the assessment activities, data analysis, and report preparation.

(ii) Familiarity with operating and maintenance practices for steam or process heating systems.

(iii) Additional potential steam system improvement opportunities including improving steam turbine operations and reducing steam demand.

(iv) Additional process heating system opportunities including effective utilization of waste heat and use of proper process heating methods.

(v) Boiler-steam turbine cogeneration systems.

(vi) Industry specific steam end-use systems.

*Regulated gas stream* means an offgas stream that is routed to a boiler for the purpose of achieving compliance with a standard under another subpart of this part or part 60, part 61, or part 65 of this chapter.

*Residential boiler* means a boiler used to provide heat and/or hot water and/or as part of a residential combined heat and power system. This definition includes boilers located at an institutional facility ( e.g., university campus, military base, church grounds) or commercial/industrial facility ( e.g., farm) used primarily to provide heat and/or hot water for:

- (1) A dwelling containing four or fewer families, or
- (2) A single unit residence dwelling that has since been converted or subdivided into condominiums or apartments.

*Residual oil* means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society of Testing and Materials in ASTM D396-10 (incorporated by reference, see § 63.14(b)).

*Responsible official* means responsible official as defined in § 70.2.

*Seasonal boiler* means a boiler that undergoes a shutdown for a period of at least 7 consecutive months (or 210 consecutive days) each 12-month period due to seasonal conditions, except for periodic testing. Periodic testing shall not exceed a combined total of 15 days during the 7-month shutdown. This definition only applies to boilers that would otherwise be included in the biomass subcategory or the oil subcategory.

*Shutdown* means the cessation of operation of a boiler for any purpose. Shutdown begins either when none of the steam or heat from the boiler is supplied for heating and/or producing electricity, or for any other purpose, or at the point of no fuel being fired in the boiler, whichever is earlier. Shutdown ends when there is no steam and no heat being supplied and no fuel being fired in the boiler.

*Solid fossil fuel* includes, but is not limited to, coal, coke, petroleum coke, and tire-derived fuel.

*Solid fuel* means any solid fossil fuel or biomass or bio-based solid fuel.

*Startup* means either the first-ever firing of fuel in a boiler for the purpose of supplying steam or heat for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam or heat from the boiler is supplied for heating and/or producing electricity, or for any other purpose.

*Temporary boiler* means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A boiler is not a temporary boiler if any one of the following conditions exists:

- (1) The equipment is attached to a foundation.
- (2) The boiler or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the regulatory agency approves an extension. An extension may be granted by the regulating agency upon petition by the owner or operator of a unit specifying the basis for such a request. Any temporary boiler that replaces a temporary boiler at a location within the facility and performs the same or similar function will be included in calculating the consecutive time period unless there is a gap in operation of 12 months or more.
- (3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.
- (4) The equipment is moved from one location to another within the facility but continues to perform the same or similar function and serve the same electricity, steam, and/or hot water system in an attempt to circumvent the residence time requirements of this definition.

*Tune-up* means adjustments made to a boiler in accordance with the procedures outlined in § 63.11223(b).

*Vegetable oil* means oils extracted from vegetation.

*Voluntary Consensus Standards (VCS)* mean technical standards ( e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. EPA/Office of Air Quality Planning and Standards, by precedent, has only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-B2959, (800) 262-1373, <http://www.astm.org> ), American Society of Mechanical Engineers (ASME ASME, Three Park Avenue, New York, NY 10016-5990, (800) 843-2763, <http://www.asme.org> ), International Standards Organization (ISO 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, +41 22 749 01 11, <http://www.iso.org/iso/home.htm> ), Standards Australia (AS Level 10, The Exchange Centre, 20 Bridge Street, Sydney, GPO Box 476, Sydney NSW 2001, + 61 2 9237 6171 <http://www.stadards.org.au> ), British Standards Institution (BSI, 389 Chiswick High Road, London, W4 4AL, United Kingdom, +44 (0)20 8996 9001, <http://www.bsigroup.com> ), Canadian Standards Association (CSA 5060 Spectrum Way, Suite 100, Mississauga, Ontario L4W 5N6, Canada, 800-463-6727, <http://www.csa.ca> ), European Committee for Standardization (CEN CENELEC Management Centre Avenue Marnix 17 B-1000 Brussels, Belgium +32 2 550 08 11, <http://www.cen.eu/cen> ), and German Engineering Standards (VDI VDI Guidelines Department, P.O. Box 10 11 39 40002, Duesseldorf, Germany, +49 211 6214-230, <http://www.vdi.eu> ). The types of standards that are not considered VCS are standards developed by: the United States, e.g., California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, e.g., Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

*Waste heat boiler* means a device that recovers normally unused energy ( i.e., hot exhaust gas) and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators. Waste heat boilers are heat exchangers generating steam from incoming hot exhaust gas from an industrial ( e.g., thermal oxidizer, kiln, furnace) or power ( e.g., combustion turbine, engine) equipment. Duct burners are sometimes used to increase the temperature of the incoming hot exhaust gas.

*Wet scrubber* means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler to control emissions of particulate matter or to absorb and neutralize acid gases, such as hydrogen chloride. A wet scrubber creates an aqueous stream or slurry as a byproduct of the emissions control process.

*Work practice standard* means any design, equipment, work practice, or operational standard, or combination thereof, which is promulgated pursuant to section 112(h) of the Clean Air Act.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7513, Feb. 1, 2013]

**Table 1 to Subpart JJJJJJ of Part 63—Emission Limits**

As stated in § 63.11201, you must comply with the following applicable emission limits:

If your boiler is in this subcategory . . .	For the following pollutants . . .	You must achieve less than or equal to the following emission limits, except during periods of startup and shutdown . . .
1. New coal-fired boilers with heat input capacity of 30 million British thermal units per hour (MMBtu/hr) or greater that do not meet the definition of limited-use boiler	a. PM (Filterable) b. Mercury c. CO	3.0E-02 pounds(lb) per million British thermal units (MMBtu) of heat input. 2.2E-05 lb per MMBtu of heat input. 420 parts per million (ppm) by volume on a dry basis corrected to 3 percent oxygen (3-run average or 10-day rolling average).

If your boiler is in this subcategory . . .	For the following pollutants . . .	You must achieve less than or equal to the following emission limits, except during periods of startup and shutdown . . .
2. New coal-fired boilers with heat input capacity of between 10 and 30 MMBtu/hr that do not meet the definition of limited-use boiler	a. PM (Filterable) b. Mercury c. CO	4.2E-01 lb per MMBtu of heat input. 2.2E-05 lb per MMBtu of heat input. 420 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average or 10-day rolling average).
3. New biomass-fired boilers with heat input capacity of 30 MMBtu/hr or greater that do not meet the definition of seasonal boiler or limited-use boiler	PM (Filterable)	3.0E-02 lb per MMBtu of heat input.
4. New biomass fired boilers with heat input capacity of between 10 and 30 MMBtu/hr that do not meet the definition of seasonal boiler or limited-use boiler	PM (Filterable)	7.0E-02 lb per MMBtu of heat input.
5. New oil-fired boilers with heat input capacity of 10 MMBtu/hr or greater that do not meet the definition of seasonal boiler or limited-use boiler	PM (Filterable)	3.0E-02 lb per MMBtu of heat input.
6. Existing coal-fired boilers with heat input capacity of 10 MMBtu/hr or greater that do not meet the definition of limited-use boiler	a. Mercury b. CO	2.2E-05 lb per MMBtu of heat input. 420 ppm by volume on a dry basis corrected to 3 percent oxygen.

[78 FR 7517, Feb. 1, 2013]

**Table 2 to Subpart JJJJJ of Part 63—Work Practice Standards, Emission Reduction Measures, and Management Practices**

As stated in § 63.11201, you must comply with the following applicable work practice standards, emission reduction measures, and management practices:

If your boiler is in this subcategory . . .	You must meet the following . . .
1. Existing or new coal-fired, new biomass-fired, or new oil-fired boilers (units with heat input capacity of 10 MMBtu/hr or greater)	Minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.
2. Existing coal-fired boilers with heat input capacity of less than 10 MMBtu/hr that do not meet the definition of limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler biennially as specified in § 63.11223.
3. New coal-fired boilers with heat input capacity of less than 10 MMBtu/hr that do not meet the definition of limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct a tune-up of the boiler biennially as specified in § 63.11223.
4. Existing oil-fired boilers with heat input capacity greater than 5 MMBtu/hr that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler biennially as specified in § 63.11223.

If your boiler is in this subcategory . . .	You must meet the following . . .
5. New oil-fired boilers with heat input capacity greater than 5 MMBtu/hr that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct a tune-up of the boiler biennially as specified in § 63.11223.
6. Existing biomass-fired boilers that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler biennially as specified in § 63.11223.
7. New biomass-fired boilers that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct a tune-up of the boiler biennially as specified in § 63.11223.
8. Existing seasonal boilers	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
9. New seasonal boilers	Conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
10. Existing limited-use boilers	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
11. New limited-use boilers	Conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
12. Existing oil-fired boilers with heat input capacity of equal to or less than 5 MMBtu/hr	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
13. New oil-fired boilers with heat input capacity of equal to or less than 5 MMBtu/hr	Conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
14. Existing coal-fired, biomass-fired, or oil-fired boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
15. New coal-fired, biomass-fired, or oil-fired boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up	Conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
16. Existing coal-fired, biomass-fired, or oil-fired boilers (units with heat input capacity of 10 MMBtu/hr and greater), not including limited-use boilers	<p>Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (1) to (4) appropriate for the on-site technical hours listed in § 63.11237:</p>
	(1) A visual inspection of the boiler system,
	(2) An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,

If your boiler is in this subcategory . . .	You must meet the following . . .
	(3) An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,
	(4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
	(5) A list of major energy conservation measures that are within the facility's control,
	(6) A list of the energy savings potential of the energy conservation measures identified, and
	(7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[78 FR 7518, Feb. 1, 2013]

**Table 3 to Subpart JJJJJJ of Part 63—Operating Limits for Boilers With Emission Limits**

As stated in § 63.11201, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable emission limits using . . .	You must meet these operating limits except during periods of startup and shutdown . . .
1. Fabric filter control	a. Maintain opacity to less than or equal to 10 percent opacity (daily block average); OR b. Install and operate a bag leak detection system according to § 63.11224 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period.
2. Electrostatic precipitator control	a. Maintain opacity to less than or equal to 10 percent opacity (daily block average); OR b. Maintain the 30-day rolling average total secondary electric power of the electrostatic precipitator at or above the minimum total secondary electric power as defined in § 63.11237.
3. Wet scrubber control	Maintain the 30-day rolling average pressure drop across the wet scrubber at or above the minimum scrubber pressure drop as defined in § 63.11237 and the 30-day rolling average liquid flow rate at or above the minimum scrubber liquid flow rate as defined in § 63.11237.
4. Dry sorbent or activated carbon injection control	Maintain the 30-day rolling average sorbent or activated carbon injection rate at or above the minimum sorbent injection rate or minimum activated carbon injection rate as defined in § 63.11237. When your boiler operates at lower loads, multiply your sorbent or activated carbon injection rate by the load fraction (e.g., actual heat input divided by the heat input during the performance stack test; for 50 percent load, multiply the injection rate operating limit by 0.5).
5. Any other add-on air pollution control type.	This option is for boilers that operate dry control systems. Boilers must maintain opacity to less than or equal to 10 percent opacity (daily block average).
6. Fuel analysis	Maintain the fuel type or fuel mixture (annual average) such that the mercury emission rate calculated according to § 63.11211(c) are less than the applicable emission limit for mercury.
7. Performance stack testing	For boilers that demonstrate compliance with a performance stack test, maintain the operating load of each unit such that it does not exceed 110 percent of the average operating load recorded during the most recent performance stack test.
8. Oxygen analyzer system	For boilers subject to a CO emission limit that demonstrate compliance with an oxygen analyzer system as specified in § 63.11224(a), maintain the 30-day rolling average oxygen level at or above the minimum oxygen level as defined in § 63.11237. This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.11224(a)(7).



[78 FR 7519, Feb. 1, 2013]

**Table 4 to Subpart JJJJJJ of Part 63—Performance (Stack) Testing Requirements**

As stated in § 63.11212, you must comply with the following requirements for performance (stack) test for affected sources:

<b>To conduct a performance test for the following pollutant. . .</b>	<b>You must. . .</b>	<b>Using. . .</b>
1. Particulate Matter	a. Select sampling ports location and the number of traverse points	Method 1 in appendix A-1 to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A-2 to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A-2 to part 60 of this chapter, or ASTM D6522-00 (Reapproved 2005), <sup>a</sup> or ANSI/ASME PTC 19.10-1981. <sup>a</sup>
	d. Measure the moisture content of the stack gas	Method 4 in appendix A-3 to part 60 of this chapter.
	e. Measure the particulate matter emission concentration	Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A-3 and A-6 to part 60 of this chapter and a minimum 1 dscm of sample volume per run.
	f. Convert emissions concentration to lb/MMBtu emission rates	Method 19 F-factor methodology in appendix A-7 to part 60 of this chapter.
2. Mercury	a. Select sampling ports location and the number of traverse points	Method 1 in appendix A-1 to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A-2 to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A-2 to part 60 of this chapter, or ASTM D6522-00 (Reapproved 2005), <sup>a</sup> or ANSI/ASME PTC 19.10-1981. <sup>a</sup>
	d. Measure the moisture content of the stack gas	Method 4 in appendix A-3 to part 60 of this chapter.
	e. Measure the mercury emission concentration	Method 29, 30A, or 30B in appendix A-8 to part 60 of this chapter or Method 101A in appendix B to part 61 of this chapter or ASTM Method D6784-02. <sup>a</sup> Collect a minimum 2 dscm of sample volume with Method 29 of 101A per run. Use a minimum run time of 2 hours with Method 30A.
	f. Convert emissions concentration to lb/MMBtu emission rates	Method 19 F-factor methodology in appendix A-7 to part 60 of this chapter.
3. Carbon Monoxide	a. Select the sampling ports location and the number of traverse points	Method 1 in appendix A-1 to part 60 of this chapter.
	b. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A-2 to part 60 of this chapter, or ASTM D6522-00 (Reapproved 2005), <sup>a</sup> or ANSI/ASME PTC 19.10-1981. <sup>a</sup>

<b>To conduct a performance test for the following pollutant. . .</b>	<b>You must. . .</b>	<b>Using. . .</b>
	c. Measure the moisture content of the stack gas	Method 4 in appendix A-3 to part 60 of this chapter.
	d. Measure the carbon monoxide emission concentration	Method 10, 10A, or 10B in appendix A-4 to part 60 of this chapter or ASTM D6522-00 (Reapproved 2005) <sup>a</sup> and a minimum 1 hour sampling time per run.

<sup>a</sup> Incorporated by reference, see § 63.14.

**Table 5 to Subpart JJJJJJ of Part 63—Fuel Analysis Requirements**

As stated in § 63.11213, you must comply with the following requirements for fuel analysis testing for affected sources:

<b>To conduct a fuel analysis for the following pollutant . . .</b>	<b>You must. . .</b>	<b>Using . . .</b>
1. Mercury	a. Collect fuel samples	Procedure in § 63.11213(b) or ASTM D2234/D2234M <sup>a</sup> (for coal) or ASTM D6323 <sup>a</sup> (for biomass) or equivalent.
	b. Compose fuel samples	Procedure in § 63.11213(b) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B <sup>a</sup> (for solid samples) or EPA SW-846-3020A <sup>a</sup> (for liquid samples) or ASTM D2013/D2013M <sup>a</sup> (for coal) or ASTM D5198 <sup>a</sup> (for biomass) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 <sup>a</sup> (for coal) or ASTM E711 <sup>a</sup> (for biomass) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 <sup>a</sup> or ASTM E871 <sup>a</sup> or equivalent.
	f. Measure mercury concentration in fuel sample	ASTM D6722 <sup>a</sup> (for coal) or EPA SW-846-7471B <sup>a</sup> (for solid samples) or EPA SW-846-7470A <sup>a</sup> (for liquid samples) or equivalent.
	g. Convert concentrations into units of lb/MMBtu of heat content	

<sup>a</sup> Incorporated by reference, see § 63.14.

**Table 6 to Subpart JJJJJJ of Part 63—Establishing Operating Limits**

As stated in § 63.11211, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. PM or mercury	a. Wet scrubber operating parameters	Establish site-specific minimum scrubber pressure drop and minimum scrubber liquid flow rate operating limits according to § 63.11211(b)	Data from the pressure drop and liquid flow rate monitors and the PM or mercury performance stack tests	(a) You must collect pressure drop and liquid flow rate data every 15 minutes during the entire period of the performance stack tests;
				(b) Determine the average pressure drop and liquid flow rate for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.
	b. Electrostatic precipitator operating parameters	Establish a site-specific minimum total secondary electric power operating limit according to § 63.11211(b)	Data from the secondary electric power monitors and the PM or mercury performance stack tests	(a) You must collect secondary electric power data every 15 minutes during the entire period of the performance stack tests;
				(b) Determine the average total secondary electric power for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.
2. Mercury	Dry sorbent or activated carbon injection rate operating parameters	Establish a site-specific minimum sorbent or activated carbon injection rate operating limit according to § 63.11211(b)	Data from the sorbent or activated carbon injection rate monitors and the mercury performance stack tests	(a) You must collect sorbent or activated carbon injection rate data every 15 minutes during the entire period of the performance stack tests;
				(b) Determine the average sorbent or activated carbon injection rate for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
				(c) When your unit operates at lower loads, multiply your sorbent or activated carbon injection rate by the load fraction (e.g., actual heat input divided by heat input during performance stack test, for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
3. CO	Oxygen	Establish a unit-specific limit for minimum oxygen level	Data from the oxygen analyzer system specified in § 63.11224(a)	(a) You must collect oxygen data every 15 minutes during the entire period of the performance stack tests;
				(b) Determine the average hourly oxygen concentration for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.
4. Any pollutant for which compliance is demonstrated by a performance stack test	Boiler operating load	Establish a unit-specific limit for maximum operating load according to § 63.11212(c)	Data from the operating load monitors (fuel feed monitors or steam generation monitors)	(a) You must collect operating load data (fuel feed rate or steam generation data) every 15 minutes during the entire period of the performance test.
				(b) Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.

[78 FR 7520, Feb. 1, 2013]

**Table 7 to Subpart JJJJJJ of Part 63—Demonstrating Continuous Compliance**

As stated in § 63.11222, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to § 63.11224(e) and § 63.11221; and
	b. Reducing the opacity monitoring data to 6-minute averages; and
	c. Maintaining opacity to less than or equal to 10 percent (daily block average).

If you must meet the following operating limits . . .	You must demonstrate continuous compliance by . . .
2. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to § 63.11224(f) and operating the fabric filter such that the requirements in § 63.11222(a)(4) are met.
3. Wet Scrubber Pressure Drop and Liquid Flow Rate	<p>a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.11224 and 63.11221; and</p> <p>b. Reducing the data to 30-day rolling averages; and</p> <p>c. Maintaining the 30-day rolling average pressure drop and liquid flow rate at or above the minimum pressure drop and minimum liquid flow rate according to § 63.11211.</p>
4. Dry Scrubber Sorbent or Activated Carbon Injection Rate	<p>a. Collecting the sorbent or activated carbon injection rate monitoring system data for the dry scrubber according to §§ 63.11224 and 63.11221; and</p> <p>b. Reducing the data to 30-day rolling averages; and</p> <p>c. Maintaining the 30-day rolling average sorbent or activated carbon injection rate at or above the minimum sorbent or activated carbon injection rate according to § 63.11211.</p>
5. Electrostatic Precipitator Total Secondary Electric Power	<p>a. Collecting the total secondary electric power monitoring system data for the electrostatic precipitator according to §§ 63.11224 and 63.11221; and</p> <p>b. Reducing the data to 30-day rolling averages; and</p> <p>c. Maintaining the 30-day rolling average total secondary electric power at or above the minimum total secondary electric power according to § 63.11211.</p>
6. Fuel Pollutant Content	<p>a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to § 63.11213 as applicable; and</p> <p>b. Keeping monthly records of fuel use according to §§ 63.11222(a)(2) and 63.11225(b)(4).</p>
7. Oxygen content	<p>a. Continuously monitoring the oxygen content of flue gas according to § 63.11224 (This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.11224(a)(7)); and</p> <p>b. Reducing the data to 30-day rolling averages; and</p> <p>c. Maintaining the 30-day rolling average oxygen content at or above the minimum oxygen level established during the most recent CO performance test.</p>
8. CO emissions	<p>a. Continuously monitoring the CO concentration in the combustion exhaust according to §§ 63.11224 and 63.11221; and</p> <p>b. Correcting the data to 3 percent oxygen, and reducing the data to 1-hour averages; and</p> <p>c. Reducing the data from the hourly averages to 10-day rolling averages; and</p> <p>d. Maintaining the 10-day rolling average CO concentration at or below the applicable emission limit in Table 1 to this subpart.</p>
9. Boiler operating load	<p>a. Collecting operating load data (fuel feed rate or steam generation data) every 15 minutes; and</p> <p>b. Reducing the data to 30-day rolling averages; and</p> <p>c. Maintaining the 30-day rolling average at or below the operating limit established during the performance test according to § 63.11212(c) and Table 6 to this subpart.</p>

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

As stated in § 63.11235, you must comply with the applicable General Provisions according to the following:

General provisions cite	Subject	Does it apply?
§ 63.1	Applicability	Yes.
§ 63.2	Definitions	Yes. Additional terms defined in § 63.11237.
§ 63.3	Units and Abbreviations	Yes.
§ 63.4	Prohibited Activities and Circumvention	Yes.
§ 63.5	Preconstruction Review and Notification Requirements	No
§ 63.6(a), (b)(1)-(b)(5), (b)(7), (c), (f)(2)-(3), (g), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes.
§ 63.6(e)(1)(i)	General Duty to minimize emissions	No. See § 63.11205 for general duty requirement.
§ 63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	No.
§ 63.6(e)(3)	SSM Plan	No.
§ 63.6(f)(1)	SSM exemption	No.
§ 63.6(h)(1)	SSM exemption	No.
§ 63.6(h)(2) to (9)	Determining compliance with opacity emission standards	Yes.
§ 63.7(a), (b), (c), (d), (e)(2)-(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes.
§ 63.7(e)(1)	Performance testing	No. See § 63.11210.
§ 63.8(a), (b), (c)(1), (c)(1)(ii), (c)(2) to (c)(9), (d)(1) and (d)(2), (e), (f), and (g)	Monitoring Requirements	Yes.
§ 63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No.
§ 63.8(c)(1)(iii)	Requirement to develop SSM Plan for CMS	No.
§ 63.8(d)(3)	Written procedures for CMS	Yes, except for the last sentence, which refers to an SSM plan. SSM plans are not required.
§ 63.9	Notification Requirements	Yes, excluding the information required in § 63.9(h)(2)(i)(B), (D), (E) and (F). See § 63.11225.
§ 63.10(a) and (b)(1)	Recordkeeping and Reporting Requirements	Yes.
§ 63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups or shutdowns	No.
§ 63.10(b)(2)(ii)	Recordkeeping of malfunctions	No. See § 63.11225 for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunctions.
§ 63.10(b)(2)(iii)	Maintenance records	Yes.
§ 63.10(b)(2)(iv) and (v)	Actions taken to minimize emissions during SSM	No.
§ 63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes.

General provisions cite	Subject	Does it apply?
§ 63.10(b)(2)(vii) to (xiv)	Other CMS requirements	Yes.
§ 63.10(b)(3)	Recordkeeping requirements for applicability determinations	No.
§ 63.10(c)(1) to (9)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(10)	Recording nature and cause of malfunctions	No. See § 63.11225 for malfunction recordkeeping requirements.
§ 63.10(c)(11)	Recording corrective actions	No. See § 63.11225 for malfunction recordkeeping requirements.
§ 63.10(c)(12) and (13)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(15)	Allows use of SSM plan	No.
§ 63.10(d)(1) and (2)	General reporting requirements	Yes.
§ 63.10(d)(3)	Reporting opacity or visible emission observation results	No.
§ 63.10(d)(4)	Progress reports under an extension of compliance	Yes.
§ 63.10(d)(5)	SSM reports	No. See § 63.11225 for malfunction reporting requirements.
§ 63.10(e)	Additional reporting requirements for sources with CMS	Yes.
§ 63.10(f)	Waiver of recordkeeping or reporting requirements	Yes.
§ 63.11	Control Device Requirements	No.
§ 63.12	State Authority and Delegation	Yes.
§ 63.13-63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§ 63.1(a)(5), (a)(7)-(a)(9), (b)(2), (c)(3)-(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)-(4), (c)(9)	Reserved	No.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7521, Feb. 1, 2013]

**Resources**

EPA Area Source Standards - Implementation Tools - Fact sheets & Brochures <http://www.epa.gov/ttn/atw/area/arearules.html>  
 EPA - TTN - Air Toxics - Industrial/Commercial/Institutional Boilers and Process Heaters weblink:  
<http://www.epa.gov/ttn/atw/boiler/boilerpg.htm>  
 EPA - Boiler Compliance at Area Sources <http://www.epa.gov/boilercompliance/>

**References**

The US EPA Electronic Code of Federal Regulations - 40 CFR 63, Subpart JJJJJJ—National Emission Standards for Industrial, Commercial, and Institutional Boilers Area Sources weblink:  
<http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=bc8778168ca070fe52d0a71cdfea7b0e&rgn=div6&view=text&node=40:15.0.1.1.1.23&idno=40>  
 Federal Register (76 FR 15591) in PDF format:  
<http://www.gpo.gov/fdsys/search/citation.result.FR.action?federalRegister.volume=2011&federalRegister.page=15591&publication=FR>

## Attachment C

### Federally Enforceable State Operating Permit (FESOP) Renewal

#### Electronic Code of Federal Regulations

#### Title 40: Protection of Environment

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

#### Subpart HHHHHH—National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

Source: 73 FR 1759, Jan. 9, 2008, unless otherwise noted.

#### What This Subpart Covers

#### § 63.11169 What is the purpose of this subpart?

Except as provided in paragraph (d) of this section, this subpart establishes national emission standards for hazardous air pollutants (HAP) for area sources involved in any of the activities in paragraphs (a) through (c) of this section. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards contained herein.

- (a) Paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), Chemical Abstract Service number 75092, in paint removal processes;
- (b) Autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations;
- (c) Spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment.
- (d) This subpart does not apply to any of the activities described in paragraph (d)(1) through (6) of this section.
  - (1) Surface coating or paint stripping performed on site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State), the National Aeronautics and Space Administration, or the National Nuclear Security Administration.
  - (2) Surface coating or paint stripping of military munitions, as defined in § 63.11180, manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or equipment directly and exclusively used for the purposes of transporting military munitions.
  - (3) Surface coating or paint stripping performed by individuals on their personal vehicles, possessions, or property, either as a hobby or for maintenance of their personal vehicles, possessions, or property. This subpart also does not apply when these operations are performed by individuals for others without compensation. An individual who spray applies surface coating to more than two motor vehicles or pieces of mobile equipment per year is subject to the requirements in this subpart that pertain to motor vehicle and mobile equipment surface coating regardless of whether compensation is received.
  - (4) Surface coating or paint stripping that meets the definition of “research and laboratory activities” in § 63.11180.



- (5) Surface coating or paint stripping that meets the definition of "quality control activities" in § 63.11180.
- (6) Surface coating or paint stripping activities that are covered under another area source NESHAP.

**§ 63.11170 Am I subject to this subpart?**

(a) You are subject to this subpart if you operate an area source of HAP as defined in paragraph (b) of this section, including sources that are part of a tribal, local, State, or Federal facility and you perform one or more of the activities in paragraphs (a)(1) through (3) of this section:

- (1) Perform paint stripping using MeCl for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates.
- (2) Perform spray application of coatings, as defined in § 63.11180, to motor vehicles and mobile equipment including operations that are located in stationary structures at fixed locations, and mobile repair and refinishing operations that travel to the customer's location, except spray coating applications that meet the definition of facility maintenance in § 63.11180. However, if you are the owner or operator of a motor vehicle or mobile equipment surface coating operation, you may petition the Administrator for an exemption from this subpart if you can demonstrate, to the satisfaction of the Administrator, that you spray apply no coatings that contain the target HAP, as defined in § 63.11180. Petitions must include a description of the coatings that you spray apply and your certification that you do not spray apply any coatings containing the target HAP. If circumstances change such that you intend to spray apply coatings containing the target HAP, you must submit the initial notification required by 63.11175 and comply with the requirements of this subpart.
- (3) Perform spray application of coatings that contain the target HAP, as defined in § 63.11180, to a plastic and/or metal substrate on a part or product, except spray coating applications that meet the definition of facility maintenance or space vehicle in § 63.11180.

(b) An area source of HAP is a source of HAP that is not a major source of HAP, is not located at a major source, and is not part of a major source of HAP emissions. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year, or emit any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

**§ 63.11171 How do I know if my source is considered a new source or an existing source?**

- (a) This subpart applies to each new and existing affected area source engaged in the activities listed in § 63.11170, with the exception of those activities listed in § 63.11169(d) of this subpart.
- (b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (6) of this section. Not all affected sources will have all of the items listed in paragraphs (b)(1) through (6) of this section.
  - (1) Mixing rooms and equipment;
  - (2) Spray booths, ventilated prep stations, curing ovens, and associated equipment;
  - (3) Spray guns and associated equipment;
  - (4) Spray gun cleaning equipment;
  - (5) Equipment used for storage, handling, recovery, or recycling of cleaning solvent or waste paint; and
  - (6) Equipment used for paint stripping at paint stripping facilities using paint strippers containing MeCl.
- (c) An affected source is a new source if it meets the criteria in paragraphs (c)(1) and (c)(2) of this section.

(1) You commenced the construction of the source after September 17, 2007 by installing new paint stripping or surface coating equipment. If you purchase and install spray booths, enclosed spray gun cleaners, paint stripping equipment to reduce MeCl emissions, or purchase new spray guns to comply with this subpart at an existing source, these actions would not make your existing source a new source.

(2) The new paint stripping or surface coating equipment is used at a source that was not actively engaged in paint stripping and/or miscellaneous surface coating prior to September 17, 2007.

(d) An affected source is reconstructed if it meets the definition of reconstruction in § 63.2.

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

### **General Compliance Requirements**

#### **§ 63.11172 When do I have to comply with this subpart?**

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) and (b) of this section.

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

(1) If the initial startup of your new or reconstructed affected source is after September 17, 2007, the compliance date is January 9, 2008.

(2) If the initial startup of your new or reconstructed affected source occurs after January 9, 2008, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is January 10, 2011.

#### **§ 63.11173 What are my general requirements for complying with this subpart?**

(a) Each paint stripping operation that is an affected area source must implement management practices to minimize the evaporative emissions of MeCl. The management practices must address, at a minimum, the practices in paragraphs (a)(1) through (5) of this section, as applicable, for your operations.

(1) Evaluate each application to ensure there is a need for paint stripping (e.g., evaluate whether it is possible to re-coat the piece without removing the existing coating).

(2) Evaluate each application where a paint stripper containing MeCl is used to ensure that there is no alternative paint stripping technology that can be used.

(3) Reduce exposure of all paint strippers containing MeCl to the air.

(4) Optimize application conditions when using paint strippers containing MeCl to reduce MeCl evaporation (e.g., if the stripper must be heated, make sure that the temperature is kept as low as possible to reduce evaporation).

(5) Practice proper storage and disposal of paint strippers containing MeCl (e.g., store stripper in closed, air-tight containers).

(b) Each paint stripping operation that has annual usage of more than one ton of MeCl must develop and implement a written MeCl minimization plan to minimize the use and emissions of MeCl. The MeCl minimization plan must address, at a minimum, the management practices specified in paragraphs (a)(1) through (5) of this section, as applicable, for your operations. Each operation must post a placard or sign outlining the MeCl minimization plan in each area where paint stripping operations subject to this subpart occur. Paint stripping operations with annual usage

of less than one ton of MeCl, must comply with the requirements in paragraphs (a)(1) through (5) of this section, as applicable, but are not required to develop and implement a written MeCl minimization plan.

(c) Each paint stripping operation must maintain copies of annual usage of paint strippers containing MeCl on site at all times.

(d) Each paint stripping operation with annual usage of more than one ton of MeCl must maintain a copy of their current MeCl minimization plan on site at all times.

(e) Each motor vehicle and mobile equipment surface coating operation and each miscellaneous surface coating operation must meet the requirements in paragraphs (e)(1) through (e)(5) of this section.

(1) All painters must be certified that they have completed training in the proper spray application of surface coatings and the proper setup and maintenance of spray equipment. The minimum requirements for training and certification are described in paragraph (f) of this section. The spray application of surface coatings is prohibited by persons who are not certified as having completed the training described in paragraph (f) of this section. The requirements of this paragraph do not apply to the students of an accredited surface coating training program who are under the direct supervision of an instructor who meets the requirements of this paragraph.

(2) All spray-applied coatings must be applied in a spray booth, preparation station, or mobile enclosure that meets the requirements of paragraph (e)(2)(i) of this section and either paragraph (e)(2)(ii), (e)(2)(iii), or (e)(2)(iv) of this section.

(i) All spray booths, preparation stations, and mobile enclosures must be fitted with a type of filter technology that is demonstrated to achieve at least 98-percent capture of paint overspray. The procedure used to demonstrate filter efficiency must be consistent with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Method 52.1, "Gravimetric and Dust-Spot Procedures for Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter, June 4, 1992" (incorporated by reference, see § 63.14 of subpart A of this part). The test coating for measuring filter efficiency shall be a high solids bake enamel delivered at a rate of at least 135 grams per minute from a conventional (non-HVLP) air-atomized spray gun operating at 40 pounds per square inch (psi) air pressure; the air flow rate across the filter shall be 150 feet per minute. Owners and operators may use published filter efficiency data provided by filter vendors to demonstrate compliance with this requirement and are not required to perform this measurement. The requirements of this paragraph do not apply to waterwash spray booths that are operated and maintained according to the manufacturer's specifications.

(ii) Spray booths and preparation stations used to refinish complete motor vehicles or mobile equipment must be fully enclosed with a full roof, and four complete walls or complete side curtains, and must be ventilated at negative pressure so that air is drawn into any openings in the booth walls or preparation station curtains. However, if a spray booth is fully enclosed and has seals on all doors and other openings and has an automatic pressure balancing system, it may be operated at up to, but not more than, 0.05 inches water gauge positive pressure.

(iii) Spray booths and preparation stations that are used to coat miscellaneous parts and products or vehicle subassemblies must have a full roof, at least three complete walls or complete side curtains, and must be ventilated so that air is drawn into the booth. The walls and roof of a booth may have openings, if needed, to allow for conveyors and parts to pass through the booth during the coating process.

(iv) Mobile ventilated enclosures that are used to perform spot repairs must enclose and, if necessary, seal against the surface around the area being coated such that paint overspray is retained within the enclosure and directed to a filter to capture paint overspray.

(3) All spray-applied coatings must be applied with a high volume, low pressure (HVLP) spray gun, electrostatic application, airless spray gun, air-assisted airless spray gun, or an equivalent technology that is demonstrated by the spray gun manufacturer to achieve transfer efficiency comparable to one of the spray gun technologies listed above for a comparable operation, and for which written approval has been obtained from the Administrator. The procedure used to demonstrate that spray gun transfer efficiency is equivalent to that of an HVLP spray gun must be equivalent to the California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" and "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002" (incorporated by reference, see § 63.14 of subpart A of this part). The requirements of this paragraph do not apply to painting performed by students and instructors at paint training

centers. The requirements of this paragraph do not apply to the surface coating of aerospace vehicles that involves the coating of components that normally require the use of an airbrush or an extension on the spray gun to properly reach limited access spaces; to the application of coatings on aerospace vehicles that contain fillers that adversely affect atomization with HVLP spray guns; or to the application of coatings on aerospace vehicles that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 in.).

(4) All paint spray gun cleaning must be done so that an atomized mist or spray of gun cleaning solvent and paint residue is not created outside of a container that collects used gun cleaning solvent. Spray gun cleaning may be done with, for example, hand cleaning of parts of the disassembled gun in a container of solvent, by flushing solvent through the gun without atomizing the solvent and paint residue, or by using a fully enclosed spray gun washer. A combination of non-atomizing methods may also be used.

(5) As provided in § 63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the emission standards in this section after you have requested approval to do so according to § 63.6(g)(2).

(f) Each owner or operator of an affected miscellaneous surface coating source must ensure and certify that all new and existing personnel, including contract personnel, who spray apply surface coatings, as defined in § 63.11180, are trained in the proper application of surface coatings as required by paragraph (e)(1) of this section. The training program must include, at a minimum, the items listed in paragraphs (f)(1) through (f)(3) of this section.

(1) A list of all current personnel by name and job description who are required to be trained;

(2) Hands-on and classroom instruction that addresses, at a minimum, initial and refresher training in the topics listed in paragraphs (f)(2)(i) through (2)(iv) of this section.

(i) Spray gun equipment selection, set up, and operation, including measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate.

(ii) Spray technique for different types of coatings to improve transfer efficiency and minimize coating usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke.

(iii) Routine spray booth and filter maintenance, including filter selection and installation.

(iv) Environmental compliance with the requirements of this subpart.

(3) A description of the methods to be used at the completion of initial or refresher training to demonstrate, document, and provide certification of successful completion of the required training. Owners and operators who can show by documentation or certification that a painter's work experience and/or training has resulted in training equivalent to the training required in paragraph (f)(2) of this section are not required to provide the initial training required by that paragraph to these painters.

(g) As required by paragraph (e)(1) of this section, all new and existing personnel at an affected motor vehicle and mobile equipment or miscellaneous surface coating source, including contract personnel, who spray apply surface coatings, as defined in § 63.11180, must be trained by the dates specified in paragraphs (g)(1) and (2) of this section. Employees who transfer within a company to a position as a painter are subject to the same requirements as a new hire.

(1) If your source is a new source, all personnel must be trained and certified no later than 180 days after hiring or no later than July 7, 2008, whichever is later. Painter training that was completed within five years prior to the date training is required, and that meets the requirements specified in paragraph (f)(2) of this section satisfies this requirement and is valid for a period not to exceed five years after the date the training is completed.

(2) If your source is an existing source, all personnel must be trained and certified no later than 180 days after hiring or no later than January 10, 2011, whichever is later. Painter training that was completed within five years prior to the date training is required, and that meets the requirements specified in paragraph (f)(2) of this section satisfies this requirement and is valid for a period not to exceed five years after the date the training is completed.

(3) Training and certification will be valid for a period not to exceed five years after the date the training is completed, and all personnel must receive refresher training that meets the requirements of this section and be re-certified every five years.

[73 FR 1760, Jan. 9, 2008; 73 FR 8408, Feb. 13, 2008]

**§ 63.11174 What parts of the General Provisions apply to me?**

(a) Table 1 of this subpart shows which parts of the General Provisions in subpart A apply to you.

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

**Notifications, Reports, and Records**

**§ 63.11175 What notifications must I submit?**

(a) Initial Notification. If you are the owner or operator of a paint stripping operation using paint strippers containing MeCl and/or a surface coating operation subject to this subpart, you must submit the initial notification required by § 63.9(b). For a new affected source, you must submit the Initial Notification no later than 180 days after initial startup or July 7, 2008, whichever is later. For an existing affected source, you must submit the initial notification no later than January 11, 2010. The initial notification must provide the information specified in paragraphs (a)(1) through (8) of this section.

(1) The company name, if applicable.

(2) The name, title, street address, telephone number, e-mail address (if available), and signature of the owner and operator, or other certifying company official;

(3) The street address (physical location) of the affected source and the street address where compliance records are maintained, if different. If the source is a motor vehicle or mobile equipment surface coating operation that repairs vehicles at the customer's location, rather than at a fixed location, such as a collision repair shop, the notification should state this and indicate the physical location where records are kept to demonstrate compliance;

(4) An identification of the relevant standard (i.e., this subpart, 40 CFR part 63, subpart HHHHHH);

(5) A brief description of the type of operation as specified in paragraph (a)(5)(i) or (ii) of this section.

(i) For all surface coating operations, indicate whether the source is a motor vehicle and mobile equipment surface coating operation or a miscellaneous surface coating operation, and include the number of spray booths and preparation stations, and the number of painters usually employed at the operation.

(ii) For paint stripping operations, identify the method(s) of paint stripping employed (e.g., chemical, mechanical) and the substrates stripped (e.g., wood, plastic, metal).

(6) Each paint stripping operation must indicate whether they plan to annually use more than one ton of MeCl after the compliance date.

(7) A statement of whether the source is already in compliance with each of the relevant requirements of this subpart, or whether the source will be brought into compliance by the compliance date. For paint stripping operations, the relevant requirements that you must evaluate in making this determination are specified in § 63.11173(a) through (d) of this subpart. For surface coating operations, the relevant requirements are specified in § 63.11173(e) through (g) of this subpart.

(8) If your source is a new source, you must certify in the initial notification whether the source is in compliance with each of the requirements of this subpart. If your source is an existing source, you may certify in the initial notification that the source is already in compliance. If you are certifying in the initial notification that the source is in compliance with the relevant requirements of this subpart, then include also a statement by a responsible official with that official's name, title, phone number, e-mail address (if available) and signature, certifying the truth, accuracy, and completeness of the notification, a statement that the source has complied with all the relevant standards of this subpart, and that this initial notification also serves as the notification of compliance status.

(b) Notification of Compliance Status. If you are the owner or operator of a new source, you are not required to submit a separate notification of compliance status in addition to the initial notification specified in paragraph (a) of this subpart provided you were able to certify compliance on the date of the initial notification, as part of the initial notification, and your compliance status has not since changed. If you are the owner or operator of any existing source and did not certify in the initial notification that your source is already in compliance as specified in paragraph (a) of this section, then you must submit a notification of compliance status. You must submit a Notification of Compliance Status on or before March 11, 2011. You are required to submit the information specified in paragraphs (b)(1) through (4) of this section with your Notification of Compliance Status:

(1) Your company's name and the street address (physical location) of the affected source and the street address where compliance records are maintained, if different.

(2) The name, title, address, telephone, e-mail address (if available) and signature of the owner and operator, or other certifying company official, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance. For paint stripping operations, the relevant requirements that you must evaluate in making this determination are specified in § 63.11173(a) through (d). For surface coating operations, the relevant requirements are specified in § 63.11173(e) through (g).

(3) The date of the Notification of Compliance Status.

(4) If you are the owner or operator of an existing affected paint stripping source that annually uses more than one ton of MeCl, you must submit a statement certifying that you have developed and are implementing a written MeCl minimization plan in accordance with § 63.11173(b).

#### **§ 63.11176 What reports must I submit?**

(a) Annual Notification of Changes Report. If you are the owner or operator of a paint stripping, motor vehicle or mobile equipment, or miscellaneous surface coating affected source, you are required to submit a report in each calendar year in which information previously submitted in either the initial notification required by § 63.11175(a), Notification of Compliance, or a previous annual notification of changes report submitted under this paragraph, has changed. Deviations from the relevant requirements in § 63.11173(a) through (d) or § 63.11173(e) through (g) on the date of the report will be deemed to be a change. This includes notification when paint stripping affected sources that have not developed and implemented a written MeCl minimization plan in accordance with § 63.11173(b) used more than one ton of MeCl in the previous calendar year. The annual notification of changes report must be submitted prior to March 1 of each calendar year when reportable changes have occurred and must include the information specified in paragraphs (a)(1) through (2) of this section.

(1) Your company's name and the street address (physical location) of the affected source and the street address where compliance records are maintained, if different.

(2) The name, title, address, telephone, e-mail address (if available) and signature of the owner and operator, or other certifying company official, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance.

(b) If you are the owner or operator of a paint stripping affected source that has not developed and implemented a written MeCl minimization plan in accordance with § 63.11173(b) of this subpart, you must submit a report for any calendar year in which you use more than one ton of MeCl. This report must be submitted no later than March 1 of the following calendar year. You must also develop and implement a written MeCl minimization plan in accordance

with § 63.11173(b) no later than December 31. You must then submit a Notification of Compliance Status report containing the information specified in § 63.11175(b) by March 1 of the following year and comply with the requirements for paint stripping operations that annually use more than one ton of MeCl in §§ 63.11173(d) and 63.11177(f).

### **§ 63.11177 What records must I keep?**

If you are the owner or operator of a surface coating operation, you must keep the records specified in paragraphs (a) through (d) and (g) of this section. If you are the owner or operator of a paint stripping operation, you must keep the records specified in paragraphs (e) through (g) of this section, as applicable.

(a) Certification that each painter has completed the training specified in § 63.11173(f) with the date the initial training and the most recent refresher training was completed.

(b) Documentation of the filter efficiency of any spray booth exhaust filter material, according to the procedure in § 63.11173(e)(3)(i).

(c) Documentation from the spray gun manufacturer that each spray gun with a cup capacity equal to or greater than 3.0 fluid ounces (89 cc) that does not meet the definition of an HVLP spray gun, electrostatic application, airless spray gun, or air assisted airless spray gun, has been determined by the Administrator to achieve a transfer efficiency equivalent to that of an HVLP spray gun, according to the procedure in § 63.11173(e)(4).

(d) Copies of any notification submitted as required by § 63.11175 and copies of any report submitted as required by § 63.11176.

(e) Records of paint strippers containing MeCl used for paint stripping operations, including the MeCl content of the paint stripper used. Documentation needs to be sufficient to verify annual usage of paint strippers containing MeCl (e.g., material safety data sheets or other documentation provided by the manufacturer or supplier of the paint stripper, purchase receipts, records of paint stripper usage, engineering calculations).

(f) If you are a paint stripping source that annually uses more than one ton of MeCl you are required to maintain a record of your current MeCl minimization plan on site for the duration of your paint stripping operations. You must also keep records of your annual review of, and updates to, your MeCl minimization plan.

(g) Records of any deviation from the requirements in § 63.11173, § 63.11174, § 63.11175, or § 63.11176. These records must include the date and time period of the deviation, and a description of the nature of the deviation and the actions taken to correct the deviation.

(h) Records of any assessments of source compliance performed in support of the initial notification, notification of compliance status, or annual notification of changes report.

### **§ 63.11178 In what form and for how long must I keep my records?**

(a) If you are the owner or operator of an affected source, you must maintain copies of the records specified in § 63.11177 for a period of at least five years after the date of each record. Copies of records must be kept on site and in a printed or electronic form that is readily accessible for inspection for at least the first two years after their date, and may be kept off-site after that two year period.

### **Other Requirements and Information**

#### **§ 63.11179 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

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

(c) The authority in § 63.11173(e)(5) will not be delegated to State, local, or tribal agencies.

**§ 63.11180 What definitions do I need to know?**

Terms used in this subpart are defined in the Clean Air Act, in 40 CFR 63.2, and in this section as follows:

*Additive* means a material that is added to a coating after purchase from a supplier (e.g., catalysts, activators, accelerators).

*Administrator* means, for the purposes of this rulemaking, the Administrator of the U.S. Environmental Protection Agency or the State or local agency that is granted delegation for implementation of this subpart.

*Aerospace vehicle or component* means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles.

*Airless and air-assisted airless spray* mean any paint spray technology that relies solely on the fluid pressure of the paint to create an atomized paint spray pattern and does not apply any atomizing compressed air to the paint before it leaves the paint nozzle. Air-assisted airless spray uses compressed air to shape and distribute the fan of atomized paint, but still uses fluid pressure to create the atomized paint.

*Appurtenance* means any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lamp posts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

*Architectural coating* means a coating to be applied to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs.

*Cleaning material* means a solvent used to remove contaminants and other materials, such as dirt, grease, or oil, from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

*Coating* means, for the purposes of this subpart, a material spray-applied to a substrate for decorative, protective, or functional purposes. For the purposes of this subpart, coating does not include the following materials:

- (1) Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances.
- (2) Paper film or plastic film that may be pre-coated with an adhesive by the film manufacturer.
- (3) Adhesives, sealants, maskants, or caulking materials.
- (4) Temporary protective coatings, lubricants, or surface preparation materials.
- (5) In-mold coatings that are spray-applied in the manufacture of reinforced plastic composite parts.

*Compliance date* means the date by which you must comply with this subpart.



*Deviation* means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source fails to meet any requirement or obligation established by this subpart.

*Dry media blasting* means abrasive blasting using dry media. Dry media blasting relies on impact and abrasion to remove paint from a substrate. Typically, a compressed air stream is used to propel the media against the coated surface.

*Electrostatic application* means any method of coating application where an electrostatic attraction is created between the part to be coated and the atomized paint particles.

*Equipment cleaning* means the use of an organic solvent to remove coating residue from the surfaces of paint spray guns and other painting related equipment, including, but not limited to stir sticks, paint cups, brushes, and spray booths.

*Facility maintenance* means, for the purposes of this subpart, surface coating performed as part of the routine repair or renovation of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity. *Facility maintenance* also includes surface coating associated with the installation of new equipment or structures, and the application of any surface coating as part of janitorial activities. *Facility maintenance* includes the application of coatings to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. *Facility maintenance* also includes the refinishing of mobile equipment in the field or at the site where they are used in service and at which they are intended to remain indefinitely after refinishing. Such mobile equipment includes, but is not limited to, farm equipment and mining equipment for which it is not practical or feasible to move to a dedicated mobile equipment refinishing facility. Such mobile equipment also includes items, such as fork trucks, that are used in a manufacturing facility and which are refinished in that same facility. *Facility maintenance* does not include surface coating of motor vehicles, mobile equipment, or items that routinely leave and return to the facility, such as delivery trucks, rental equipment, or containers used to transport, deliver, distribute, or dispense commercial products to customers, such as compressed gas canisters.

*High-volume, low-pressure (HVLP) spray equipment* means spray equipment that is permanently labeled as such and used to apply any coating by means of a spray gun which is designed and operated between 0.1 and 10 pounds per square inch gauge (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.

*Initial startup* means the first time equipment is brought online in a paint stripping or surface coating operation, and paint stripping or surface coating is first performed.

*Materials that contain HAP or HAP-containing materials* mean, for the purposes of this subpart, materials that contain 0.1 percent or more by mass of any individual HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4), or 1.0 percent or more by mass for any other individual HAP.

*Military munitions* means all ammunition products and components produced or used by or for the U.S. Department of Defense (DoD) or for the U.S. Armed Services for national defense and security, including military munitions under the control of the Department of Defense, the U.S. Coast Guard, the National Nuclear Security Administration (NNSA), U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DoD components, including bulk explosives and chemical warfare agents, chemical munitions, biological weapons, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, nonnuclear components of nuclear weapons, wholly inert ammunition products, and all devices and components of any items listed in this definition.

*Miscellaneous parts and/or products* means any part or product made of metal or plastic, or combinations of metal and plastic. Miscellaneous parts and/or products include, but are not limited to, metal and plastic components of the following types of products as well as the products themselves: motor vehicle parts and accessories for automobiles, trucks, recreational vehicles; automobiles and light duty trucks at automobile and light duty truck assembly plants; boats; sporting and recreational goods; toys; business machines; laboratory and medical equipment; and household and other consumer products.

*Miscellaneous surface coating operation* means the collection of equipment used to apply surface coating to miscellaneous parts and/or products made of metal or plastic, including applying cleaning solvents to prepare the surface before coating application, mixing coatings before application, applying coating to a surface, drying or curing the coating after application, and cleaning coating application equipment, but not plating. A single surface coating operation may include any combination of these types of equipment, but always includes at least the point at which a coating material is applied to a given part. A surface coating operation includes all other steps (such as surface preparation with solvent and equipment cleaning) in the affected source where HAP are emitted from the coating of a part. The use of solvent to clean parts (for example, to remove grease during a mechanical repair) does not constitute a miscellaneous surface coating operation if no coatings are applied. A single affected source may have multiple surface coating operations. Surface coatings applied to wood, leather, rubber, ceramics, stone, masonry, or substrates other than metal and plastic are not considered miscellaneous surface coating operations for the purposes of this subpart.

*Mobile equipment* means any device that may be drawn and/or driven on a roadway including, but not limited to, heavy-duty trucks, truck trailers, fleet delivery trucks, buses, mobile cranes, bulldozers, street cleaners, agriculture equipment, motor homes, and other recreational vehicles (including camping trailers and fifth wheels).

*Motor vehicle* means any self-propelled vehicle, including, but not limited to, automobiles, light duty trucks, golf carts, vans, and motorcycles.

*Motor vehicle and mobile equipment surface coating* means the spray application of coatings to assembled motor vehicles or mobile equipment. For the purposes of this subpart, it does not include the surface coating of motor vehicle or mobile equipment parts or subassemblies at a vehicle assembly plant or parts manufacturing plant.

*Non-HAP solvent* means, for the purposes of this subpart, a solvent (including thinners and cleaning solvents) that contains less than 0.1 percent by mass of any individual HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and less than 1.0 percent by mass for any other individual HAP.

*Paint stripping and/or miscellaneous surface coating source or facility* means any shop, business, location, or parcel of land where paint stripping or miscellaneous surface coating operations are conducted.

*Paint stripping* means the removal of dried coatings from wood, metal, plastic, and other substrates. A single affected source may have multiple paint stripping operations.

*Painter* means any person who spray applies coating.

*Plastic* refers to substrates containing one or more resins and may be solid, porous, flexible, or rigid. Plastics include fiber reinforced plastic composites.

*Protective oil* means organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

*Quality control activities* means surface coating or paint stripping activities that meet all of the following criteria:

- (1) The activities associated with a surface coating or paint stripping operation are intended to detect and correct defects in the final product by selecting a limited number of samples from the operation, and comparing the samples against specific performance criteria.
- (2) The activities do not include the production of an intermediate or final product for sale or exchange for commercial profit; for example, parts that are surface coated or stripped are not sold and do not leave the facility.
- (3) The activities are not a normal part of the surface coating or paint stripping operation; for example, they do not include color matching activities performed during a motor vehicle collision repair.

(4) The activities do not involve surface coating or stripping of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity; that is, the activities are not facility maintenance.

*Research and laboratory activities* means surface coating or paint stripping activities that meet one of the following criteria:

(1) Conducted at a laboratory to analyze air, soil, water, waste, or product samples for contaminants, or environmental impact.

(2) Activities conducted to test more efficient production processes, including alternative paint stripping or surface coating materials or application methods, or methods for preventing or reducing adverse environmental impacts, provided that the activities do not include the production of an intermediate or final product for sale or exchange for commercial profit.

(3) Activities conducted at a research or laboratory facility that is operated under the close supervision of technically trained personnel, the primary purpose of which is to conduct research and development into new processes and products and that is not engaged in the manufacture of products for sale or exchange for commercial profit.

*Solvent* means a fluid containing organic compounds used to perform paint stripping, surface prep, or cleaning of surface coating equipment.

*Space Vehicle* means vehicles designed to travel beyond the limit of the earth's atmosphere, including but not limited to satellites, space stations, and the Space Shuttle System (including orbiter, external tanks, and solid rocket boosters).

*Spray-applied coating operations* means coatings that are applied using a hand-held device that creates an atomized mist of coating and deposits the coating on a substrate. For the purposes of this subpart, spray-applied coatings do not include the following materials or activities:

(1) Coatings applied from a hand-held device with a paint cup capacity that is equal to or less than 3.0 fluid ounces (89 cubic centimeters).

(2) Surface coating application using powder coating, hand-held, non-refillable aerosol containers, or non-atomizing application technology, including, but not limited to, paint brushes, rollers, hand wiping, flow coating, dip coating, electrodeposition coating, web coating, coil coating, touch-up markers, or marking pens.

(3) Thermal spray operations (also known as metallizing, flame spray, plasma arc spray, and electric arc spray, among other names) in which solid metallic or non-metallic material is heated to a molten or semi-molten state and propelled to the work piece or substrate by compressed air or other gas, where a bond is produced upon impact.

*Surface preparation* or *Surface prep* means use of a cleaning material on a portion of or all of a substrate prior to the application of a coating.

*Target HAP* are compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd).

*Target HAP containing coating* means a spray-applied coating that contains any individual target HAP that is an Occupational Safety and Health Administration (OSHA)-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) at a concentration greater than 0.1 percent by mass, or greater than 1.0 percent by mass for any other individual target HAP compound. For the purpose of determining whether materials you use contain the target HAP compounds, you may rely on formulation data provided by the manufacturer or supplier, such as the material safety data sheet (MSDS), as long as it represents each target HAP compound in the material that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other target HAP compounds.

*Transfer efficiency* means the amount of coating solids adhering to the object being coated divided by the total amount of coating solids sprayed, expressed as a percentage. Coating solids means the nonvolatile portion of the coating that makes up the dry film.

*Truck bed liner coating* means any coating, excluding color coats, labeled and formulated for application to a truck bed to protect it from surface abrasion.

**Table 1 to Subpart HHHHHH of Part 63—Applicability of General Provisions to Subpart HHHHHH of Part 63**

Citation	Subject	Applicable to subpart HHHHHH	Explanation
§ 63.1(a)(1)-(12)	General Applicability	Yes	
§ 63.1(b)(1)-(3)	Initial Applicability Determination	Yes	Applicability of subpart HHHHHH is also specified in § 63.11170.
§ 63.1(c)(1)	Applicability After Standard Established	Yes	
§ 63.1(c)(2)	Applicability of Permit Program for Area Sources	Yes	(63.11174(b) of Subpart HHHHHH exempts area sources from the obligation to obtain Title V operating permits.
§ 63.1(c)(5)	Notifications	Yes	
§ 63.1(e)	Applicability of Permit Program to Major Sources Before Relevant Standard is Set	No	(63.11174(b) of Subpart HHHHHH exempts area sources from the obligation to obtain Title V operating permits.
§ 63.2	Definitions	Yes	Additional definitions are specified in § 63.11180.
§ 63.3(a)-(c)	Units and Abbreviations	Yes	
§ 63.4(a)(1)-(5)	Prohibited Activities	Yes	
§ 63.4(b)-(c)	Circumvention/Fragmentation	Yes	
§ 63.5	Construction/Reconstruction of major sources	No	Subpart HHHHHH applies only to area sources.
§ 63.6(a)	Compliance With Standards and Maintenance Requirements—Applicability	Yes	
§ 63.6(b)(1)-(7)	Compliance Dates for New and Reconstructed Sources	Yes	§ 63.11172 specifies the compliance dates.
§ 63.6(c)(1)-(5)	Compliance Dates for Existing Sources	Yes	§ 63.11172 specifies the compliance dates.
§ 63.6(e)(1)-(2)	Operation and Maintenance	Yes	
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	No	No startup, shutdown, and malfunction plan is required by subpart HHHHHH.
§ 63.6(f)(1)	Compliance Except During Startup, Shutdown, and Malfunction	Yes	
§ 63.6(f)(2)-(3)	Methods for Determining Compliance	Yes	
§ 63.6(g)(1)-(3)	Use of an Alternative Standard	Yes	
§ 63.6(h)	Compliance With Opacity/Visible Emission Standards	No	Subpart HHHHHH does not establish opacity or visible emission standards.
§ 63.6(i)(1)-(16)	Extension of Compliance	Yes	
§ 63.6(j)	Presidential Compliance Exemption	Yes	
§ 63.7	Performance Testing Requirements	No	No performance testing is required by subpart HHHHHH.
§ 63.8	Monitoring Requirements	No	Subpart HHHHHH does not require the use of continuous monitoring systems.

Citation	Subject	Applicable to subpart HHHHHH	Explanation
§ 63.9(a)-(d)	Notification Requirements	Yes	§ 63.11175 specifies notification requirements.
§ 63.9(e)	Notification of Performance Test	No	Subpart HHHHHH does not require performance tests.
§ 63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart HHHHHH does not have opacity or visible emission standards.
§ 63.9(g)	Additional Notifications When Using CMS	No	Subpart HHHHHH does not require the use of continuous monitoring systems.
§ 63.9(h)	Notification of Compliance Status	No	§ 63.11175 specifies the dates and required content for submitting the notification of compliance status.
§ 63.9(i)	Adjustment of Submittal Deadlines	Yes	
§ 63.9(j)	Change in Previous Information	Yes	§ 63.11176(a) specifies the dates for submitting the notification of changes report.
§ 63.10(a)	Recordkeeping/Reporting—Applicability and General Information	Yes	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes	Additional requirements are specified in § 63.11177.
§ 63.10(b)(2)(i)-(xi)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS	No	Subpart HHHHHH does not require startup, shutdown, and malfunction plans, or CMS.
§ 63.10(b)(2)(xii)	Waiver of recordkeeping requirements	Yes	
§ 63.10(b)(2)(xiii)	Alternatives to the relative accuracy test	No	Subpart HHHHHH does not require the use of CEMS.
§ 63.10(b)(2)(xiv)	Records supporting notifications	Yes	
§ 63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes	
§ 63.10(c)	Additional Recordkeeping Requirements for Sources with CMS	No	Subpart HHHHHH does not require the use of CMS.
§ 63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in § 63.11176.
§ 63.10(d)(2)-(3)	Report of Performance Test Results, and Opacity or Visible Emissions Observations	No	Subpart HHHHHH does not require performance tests, or opacity or visible emissions observations.
§ 63.10(d)(4)	Progress Reports for Sources With Compliance Extensions	Yes	
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	No	Subpart HHHHHH does not require startup, shutdown, and malfunction reports.
§ 63.10(e)	Additional Reporting requirements for Sources with CMS	No	Subpart HHHHHH does not require the use of CMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§ 63.11	Control Device Requirements/Flares	No	Subpart HHHHHH does not require the use of flares.
§ 63.12	State Authority and Delegations	Yes	
§ 63.13	Addresses of State Air Pollution Control Agencies and EPA Regional Offices	Yes	

Citation	Subject	Applicable to subpart HHHHHH	Explanation
§ 63.14	Incorporation by Reference	Yes	Test methods for measuring paint booth filter efficiency and spray gun transfer efficiency in § 63.11173(e)(2) and (3) are incorporated and included in § 63.14.
§ 63.15	Availability of Information/Confidentiality	Yes	
§ 63.16(a)	Performance Track Provisions—reduced reporting	Yes	
§ 63.16(b)-(c)	Performance Track Provisions—reduced reporting	No	Subpart HHHHHH does not establish numerical emission limits.

**Additional Information**

US EPA Rule and Implementation Information for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources  
<http://www.epa.gov/ttn/atw/6h/6hpg.html>

US EPA Paint Stripping and Miscellaneous Surface Coating Operations Brochure, weblink:  
[http://www.epa.gov/ttn/atw/area/paint\\_stripb.pdf](http://www.epa.gov/ttn/atw/area/paint_stripb.pdf)

**Reference**

The US EPA Electronic Code of Federal Regulations - 40 CFR 63, Subpart HHHHHH—National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources weblink:  
<http://www.ecfr.gov/cgi-bin/text-idx?SID=c0b79f2a205e76f9c12aee24090bff45&node=40:15.0.1.1.1.21&rgn=div6>

## Attachment D

### Federally Enforceable State Operating Permit (FESOP) Renewal

#### Electronic Code of Federal Regulations

#### Title 40: Protection of Environment

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

#### Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

Source: 73 FR 1945, Jan. 10, 2008, unless otherwise noted.

#### What This Subpart Covers

##### § 63.11110 What is the purpose of this subpart?

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

##### § 63.11111 Am I subject to the requirements in this subpart?

(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

(b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in § 63.11116.

(c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in § 63.11117.

(d) If your GDF has a monthly throughput of 100,000 gallons of gasoline or more, you must comply with the requirements in § 63.11118.

(e) An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in § 63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in § 63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years.

(f) If you are an owner or operator of affected sources, as defined in paragraph (a) of this section, you are not required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you must still apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR 71.3(a) and (b).

(g) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.

(h) Monthly throughput is the total volume of gasoline loaded into, or dispensed from, all the gasoline storage tanks located at a single affected GDF. If an area source has two or more GDF at separate locations within the area source, each GDF is treated as a separate affected source.

(i) If your affected source's throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.

(j) The dispensing of gasoline from a fixed gasoline storage tank at a GDF into a portable gasoline tank for the on-site delivery and subsequent dispensing of the gasoline into the fuel tank of a motor vehicle or other gasoline-fueled engine or equipment used within the area source is only subject to § 63.11116 of this subpart.

(k) For any affected source subject to the provisions of this subpart and another Federal rule, you may elect to comply only with the more stringent provisions of the applicable subparts. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the affected source and provisions with which you will comply in your Notification of Compliance Status required under § 63.11124. You also must demonstrate in your Notification of Compliance Status that each provision with which you will comply is at least as stringent as the otherwise applicable requirements in this subpart. You are responsible for making accurate determinations concerning the more stringent provisions, and noncompliance with this rule is not excused if it is later determined that your determination was in error, and, as a result, you are violating this subpart. Compliance with this rule is your responsibility and the Notification of Compliance Status does not alter or affect that responsibility.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4181, Jan. 24, 2011]

**§ 63.11112 What parts of my affected source does this subpart cover?**

(a) The emission sources to which this subpart applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in § 63.11111. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this subpart.

(b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in § 63.11111 at the time you commenced operation.

(c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in § 63.2.

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

**§ 63.11113 When do I have to comply with this subpart?**

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section, except as specified in paragraph (d) of this section.

(1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.

(2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the standards in this subpart no later than January 10, 2011.

(c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the monthly throughput, as specified in § 63.11111(c) or § 63.11111(d), you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.



(d) If you have a new or reconstructed affected source and you are complying with Table 1 to this subpart, you must comply according to paragraphs (d)(1) and (2) of this section.

(1) If you start up your affected source from November 9, 2006 to September 23, 2008, you must comply no later than September 23, 2008.

(2) If you start up your affected source after September 23, 2008, you must comply upon startup of your affected source.

(e) The initial compliance demonstration test required under § 63.11120(a)(1) and (2) must be conducted as specified in paragraphs (e)(1) and (2) of this section.

(1) If you have a new or reconstructed affected source, you must conduct the initial compliance test upon installation of the complete vapor balance system.

(2) If you have an existing affected source, you must conduct the initial compliance test as specified in paragraphs (e)(2)(i) or (e)(2)(ii) of this section.

(i) For vapor balance systems installed on or before December 15, 2009, you must test no later than 180 days after the applicable compliance date specified in paragraphs (b) or (c) of this section.

(ii) For vapor balance systems installed after December 15, 2009, you must test upon installation of the complete vapor balance system.

(f) If your GDF is subject to the control requirements in this subpart only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must comply with the standards in this subpart as specified in paragraphs (f)(1) or (f)(2) of this section.

(1) If your GDF is an existing facility, you must comply by January 24, 2014.

(2) If your GDF is a new or reconstructed facility, you must comply by the dates specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) If you start up your GDF after December 15, 2009, but before January 24, 2011, you must comply no later than January 24, 2011.

(ii) If you start up your GDF after January 24, 2011, you must comply upon startup of your GDF.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 35944, June 25, 2008; 76 FR 4181, Jan. 24, 2011]

## **Emission Limitations and Management Practices**

### **§ 63.11115 What are my general duties to minimize emissions?**

Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

(a) You must, at all times, 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. 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.

(b) You must keep applicable records and submit reports as specified in § 63.11125(d) and § 63.11126(b).

[76 FR 4182, Jan. 24, 2011]

**§ 63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.**

(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

- (1) Minimize gasoline spills;
- (2) Clean up spills as expeditiously as practicable;
- (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(b) You are not required to submit notifications or reports as specified in § 63.11125, § 63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(c) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11113.

(d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4182, Jan. 24, 2011]

**§ 63.11117 Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.**

(a) You must comply with the requirements in section § 63.11116(a).

(b) Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in § 63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.

(2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

(3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.

(c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section, but must comply only with all of the requirements in § 63.11116.

(d) You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(e) You must submit the applicable notifications as required under § 63.11124(a).

(f) You must comply with the requirements of this subpart by the applicable dates contained in § 63.11113.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4182, Jan. 24, 2011]

**§ 63.11118 Requirements for facilities with monthly throughput of 100,000 gallons of gasoline or more.**

(a) You must comply with the requirements in §§ 63.11116(a) and 63.11117(b).

(b) Except as provided in paragraph (c) of this section, you must meet the requirements in either paragraph (b)(1) or paragraph (b)(2) of this section.

(1) Each management practice in Table 1 to this subpart that applies to your GDF.

(2) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(2)(i) and (ii) of this section, you will be deemed in compliance with this subsection.

(i) You operate a vapor balance system at your GDF that meets the requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(c) The emission sources listed in paragraphs (c)(1) through (3) of this section are not required to comply with the control requirements in paragraph (b) of this section, but must comply with the requirements in § 63.11117.

(1) Gasoline storage tanks with a capacity of less than 250 gallons that are constructed after January 10, 2008.

(2) Gasoline storage tanks with a capacity of less than 2,000 gallons that were constructed before January 10, 2008.

(3) Gasoline storage tanks equipped with floating roofs, or the equivalent.

(d) Cargo tanks unloading at GDF must comply with the management practices in Table 2 to this subpart.

(e) You must comply with the applicable testing requirements contained in § 63.11120.

(f) You must submit the applicable notifications as required under § 63.11124.

(g) You must keep records and submit reports as specified in §§ 63.11125 and 63.11126.

(h) You must comply with the requirements of this subpart by the applicable dates contained in § 63.11113.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008]

**Testing and Monitoring Requirements**

**§ 63.11120 What testing and monitoring requirements must I meet?**

(a) Each owner or operator, at the time of installation, as specified in § 63.11113(e), of a vapor balance system required under § 63.11118(b)(1), and every 3 years thereafter, must comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to this subpart, for pressure-vacuum vent valves installed on your gasoline storage tanks using the test methods identified in paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see § 63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).

(2) You must demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to this subpart for your vapor balance system by conducting a static pressure test on your gasoline storage tanks using the test methods identified in paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see § 63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).

(iii) Bay Area Air Quality Management District Source Test Procedure ST-30—Static Pressure Integrity Test—Underground Storage Tanks, adopted November 30, 1983, and amended December 21, 1994 (incorporated by reference, see § 63.14).

(b) Each owner or operator choosing, under the provisions of § 63.6(g), to use a vapor balance system other than that described in Table 1 to this subpart must demonstrate to the Administrator or delegated authority under paragraph § 63.11131(a) of this subpart, the equivalency of their vapor balance system to that described in Table 1 to this subpart using the procedures specified in paragraphs (b)(1) through (3) of this section.

(1) You must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP-201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see § 63.14).

(2) You must, during the initial performance test required under paragraph (b)(1) of this section, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to this subpart and for the static pressure performance requirement in item 1(h) of Table 1 to this subpart.

(3) You must comply with the testing requirements specified in paragraph (a) of this section.

(c) Conduct of performance tests. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance ( *i.e.*, performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(d) Owners and operators of gasoline cargo tanks subject to the provisions of Table 2 to this subpart must conduct annual certification testing according to the vapor tightness testing requirements found in § 63.11092(f).

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4182, Jan. 24, 2011]

## Notifications, Records, and Reports

### § 63.11124 What notifications must I submit and when?

(a) Each owner or operator subject to the control requirements in § 63.11117 must comply with paragraphs (a)(1) through (3) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in § 63.11117, unless you meet the requirements in paragraph (a)(3) of this section. If your affected source is subject to the control requirements in § 63.11117 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (a)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in § 63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of § 63.11117 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, within 60 days of the applicable compliance date specified in § 63.11113, unless you meet the requirements in paragraph (a)(3) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facilities' monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (a)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (a)(1) of this section.

(3) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in § 63.11117(b), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.

(b) Each owner or operator subject to the control requirements in § 63.11118 must comply with paragraphs (b)(1) through (5) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in § 63.11118. If your affected source is subject to the control requirements in § 63.11118 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (b)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in § 63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of § 63.11118 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, in accordance with the schedule specified in § 63.9(h). The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facility's throughput is

determined based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (b)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (b)(1) of this section.

(3) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(3)(i) and (ii) of this section, you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (b)(1) or paragraph (b)(2) of this subsection.

(i) You operate a vapor balance system at your gasoline dispensing facility that meets the requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(4) You must submit a Notification of Performance Test, as specified in § 63.9(e), prior to initiating testing required by § 63.11120(a) and (b).

(5) You must submit additional notifications specified in § 63.9, as applicable.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4182, Jan. 24, 2011]

#### **§ 63.11125 What are my recordkeeping requirements?**

(a) Each owner or operator subject to the management practices in § 63.11118 must keep records of all tests performed under § 63.11120(a) and (b).

(b) Records required under paragraph (a) of this section shall be kept for a period of 5 years and shall be made available for inspection by the Administrator's delegated representatives during the course of a site visit.

(c) Each owner or operator of a gasoline cargo tank subject to the management practices in Table 2 to this subpart must keep records documenting vapor tightness testing for a period of 5 years. Documentation must include each of the items specified in § 63.11094(b)(2)(i) through (viii). Records of vapor tightness testing must be retained as specified in either paragraph (c)(1) or paragraph (c)(2) of this section.

(1) The owner or operator must keep all vapor tightness testing records with the cargo tank.

(2) As an alternative to keeping all records with the cargo tank, the owner or operator may comply with the requirements of paragraphs (c)(2)(i) and (ii) of this section.

(i) The owner or operator may keep records of only the most recent vapor tightness test with the cargo tank, and keep records for the previous 4 years at their office or another central location.

(ii) Vapor tightness testing records that are kept at a location other than with the cargo tank must be instantly available ( e.g., via e-mail or facsimile) to the Administrator's delegated representative during the course of a site visit or within a mutually agreeable time frame. Such records must be an exact duplicate image of the original paper copy record with certifying signatures.

(d) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (d)(1) and (2) of this section.

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

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4183, Jan. 24, 2011]

#### **§ 63.11126 What are my reporting requirements?**

(a) Each owner or operator subject to the management practices in § 63.11118 shall report to the Administrator the results of all volumetric efficiency tests required under § 63.11120(b). Reports submitted under this paragraph must be submitted within 180 days of the completion of the performance testing.

(b) Each owner or operator of an affected source under this subpart shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year 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 § 63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.

[76 FR 4183, Jan. 24, 2011]

#### **Other Requirements and Information**

#### **§ 63.11130 What parts of the General Provisions apply to me?**

Table 3 to this subpart shows which parts of the General Provisions apply to you.

#### **§ 63.11131 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as the applicable State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or tribal agency.

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

(c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (3) of this section.

(1) Approval of alternatives to the requirements in §§ 63.11116 through 63.11118 and 63.11120.

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

(3) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

**§ 63.11132 What definitions apply to this subpart?**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), or in subparts A and BBBBBB of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

*Dual-point vapor balance system* means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

*Gasoline* means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.

*Gasoline cargo tank* means a delivery tank truck or railcar which is loading or unloading gasoline, or which has loaded or unloaded gasoline on the immediately previous load.

*Gasoline dispensing facility (GDF)* means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

*Monthly throughput* means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

*Motor vehicle* means any self-propelled vehicle designed for transporting persons or property on a street or highway.

*Nonroad engine* means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

*Nonroad vehicle* means a vehicle that is powered by a nonroad engine, and that is not a motor vehicle or a vehicle used solely for competition.

*Submerged filling* means, for the purposes of this subpart, the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in § 63.11117(b) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

*Vapor balance system* means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

*Vapor-tight* means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

*Vapor-tight gasoline cargo tank* means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in § 63.11092(f) of this part.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4183, Jan. 24, 2011]



**Table 1 to Subpart CCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More<sup>1</sup>**

If you own or operate	Then you must
1. A new, reconstructed, or existing GDF subject to § 63.11118	Install and operate a vapor balance system on your gasoline storage tanks that meets the design criteria in paragraphs (a) through (h).
	(a) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnect.
	(b) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor-tight, as defined in § 63.11132.
	(c) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.
	(d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.
	(e) If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in § 63.11117(b).
	(f) Liquid fill connections for all systems shall be equipped with vapor-tight caps.
	(g) Pressure/vacuum (PV) vent valves shall be installed on the storage tank vent pipes. The pressure specifications for PV vent valves shall be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.
	(h) The vapor balance system shall be capable of meeting the static pressure performance requirement of the following equation:
	$P_f = 2e^{-500.887/v}$
	Where:
	$P_f$ = Minimum allowable final pressure, inches of water.
	$v$ = Total ullage affected by the test, gallons.
	$e$ = Dimensionless constant equal to approximately 2.718.
	2 = The initial pressure, inches water.
2. A new or reconstructed GDF, or any storage tank(s) constructed after November 9, 2006, at an existing affected facility subject to § 63.11118	Equip your gasoline storage tanks with a dual-point vapor balance system, as defined in § 63.11132, and comply with the requirements of item 1 in this Table.

<sup>1</sup> The management practices specified in this Table are not applicable if you are complying with the requirements in § 63.11118(b)(2), except that if you are complying with the requirements in § 63.11118(b)(2)(i)(B), you must operate using management practices at least as stringent as those listed in this Table.

**Table 2 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Cargo Tanks Unloading at Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More**

If you own or operate	Then you must
A gasoline cargo tank	Not unload gasoline into a storage tank at a GDF subject to the control requirements in this subpart unless the following conditions are met:
	(i) All hoses in the vapor balance system are properly connected,
	(ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect,
	(iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight,
	(iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and
	(v) All hatches on the tank truck are closed and securely fastened.
	(vi) The filling of storage tanks at GDF shall be limited to unloading from vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 shall be carried with the cargo tank, as specified in § 63.11125(c).

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4184, Jan. 24, 2011]

**Table 3 to Subpart CCCCCC of Part 63—Applicability of General Provisions**

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications	Yes, specific requirements given in § 63.11111.
§ 63.1(c)(2)	Title V Permit	Requirements for obtaining a title V permit from the applicable permitting authority	Yes, § 63.11111(f) of subpart CCCCCC exempts identified area sources from the obligation to obtain title V operating permits.
§ 63.2	Definitions	Definitions for part 63 standards	Yes, additional definitions in § 63.11132.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§ 63.4	Prohibited Activities and Circumvention	Prohibited activities; Circumvention, severability	Yes.
§ 63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes, except that these notifications are not required for facilities subject to § 63.11116
§ 63.6(a)	Compliance with Standards/Operation & Maintenance—Applicability	General Provisions apply unless compliance extension; General Provisions apply to area sources that become major	Yes.
§ 63.6(b)(1)-(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§ 63.6(b)(6)	[Reserved]		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	No.
§ 63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension	No, § 63.11113 specifies the compliance dates.
§ 63.6(c)(3)-(4)	[Reserved]		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources That become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)	No.
§ 63.6(d)	[Reserved]		
63.6(e)(1)(i)	General duty to minimize emissions	Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met.	No. See § 63.11115 for general duty requirement.
63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	Owner or operator must correct malfunctions as soon as possible.	No.
§ 63.6(e)(2)	[Reserved]		
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) Plan	Requirement for SSM plan; content of SSM plan; actions during SSM	No.
§ 63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	No.
§ 63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§ 63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§ 63.6(h)(1)	Compliance with Opacity/Visible Emission (VE) Standards	You must comply with opacity/VE standards at all times except during SSM	No.
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards	If standard does not State test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter	No.
§ 63.6(h)(2)(ii)	[Reserved]		
§ 63.6(h)(2)(iii)	Using Previous Tests To Demonstrate Compliance With Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	No.
§ 63.6(h)(3)	[Reserved]		
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date	Must notify Administrator of anticipated date of observation	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.6(h)(5)(i), (iii)-(v)	Conducting Opacity/VE Observations	Dates and schedule for conducting opacity/VE observations	No.
§ 63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with 30 6-minute averages	No.
§ 63.6(h)(6)	Records of Conditions During Opacity/VE Observations	Must keep records available and allow Administrator to inspect	No.
§ 63.6(h)(7)(i)	Report Continuous Opacity Monitoring System (COMS) Monitoring Data From Performance Test	Must submit COMS data with other performance test data	No.
§ 63.6(h)(7)(ii)	Using COMS Instead of EPA Method 9	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test	No.
§ 63.6(h)(7)(iii)	Averaging Time for COMS During Performance Test	To determine compliance, must reduce COMS data to 6-minute averages	No.
§ 63.6(h)(7)(iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to § 63.8(e); COMS are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d)	No.
§ 63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards	COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered	No.
§ 63.6(h)(8)	Determining Compliance with Opacity/VE Standards	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance	No.
§ 63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	No.
§ 63.6(i)(1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes.
§ 63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§ 63.7(a)(3)	CAA Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes.
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.7(b)(2)	Notification of Re-scheduling	If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.
§ 63.7(c)	Quality Assurance (QA)/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
63.7(e)(1)	Conditions for Conducting Performance Tests	Performance test must be conducted under representative conditions	No, § 63.11120(c) specifies conditions for conducting performance tests.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply	Yes.
§ 63.8(a)(3)	[Reserved]		
§ 63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in § 63.11 apply	Yes.
§ 63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCC
§ 63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	No.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	No.
§ 63.8(c)(1)(i)-(iii)	Operation and Maintenance of Continuous Monitoring Systems (CMS)	Must maintain and operate each CMS as specified in § 63.6(e)(1); must keep parts for routine repairs readily available; must develop a written SSM plan for CMS, as specified in § 63.6(e)(3)	No.
§ 63.8(c)(2)-(8)	CMS Requirements	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	No.
§ 63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	No.
§ 63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	No.
§ 63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	No.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system (CEMS)	No.
§ 63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	No.
§ 63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§ 63.9(b)(1)-(2), (4)-(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each	Yes.
§ 63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§ 63.9(g)	Additional Notifications when Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes, however, there are no opacity standards.
§ 63.9(h)(1)-(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	Yes, however, there are no opacity standards.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change when notifications must be submitted	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§ 63.10(b)(2)(i)	Records related to SSM	Recordkeeping of occurrence and duration of startups and shutdowns	No.
§ 63.10(b)(2)(ii)	Records related to SSM	Recordkeeping of malfunctions	No. See § 63.11125(d) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§ 63.10(b)(2)(iii)	Maintenance records	Recordkeeping of maintenance on air pollution control and monitoring equipment	Yes.
§ 63.10(b)(2)(iv)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§ 63.10(b)(2)(v)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§ 63.10(b)(2)(vi)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	No.
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes.
§ 63.10(b)(3)	Records	Applicability determinations	Yes.
§ 63.10(c)	Records	Additional records for CMS	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§ 63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§ 63.10(d)(5)	SSM Reports	Contents and submission	No. See § 63.11126(b) for malfunction reporting requirements.
§ 63.10(e)(1)-(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; two-three copies of COMS performance evaluation	No.
§ 63.10(e)(3)(i)-(iii)	Reports	Schedule for reporting excess emissions	No.
§ 63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)	No.
§ 63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)	No, § 63.11130(K) specifies excess emission events for this subpart.
§ 63.10(e)(3)(vi)-(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS; requires all of the information in §§ 63.10(c)(5)-(13) and 63.8(c)(7)-(8)	No.
§ 63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	No.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.



<b>Citation</b>	<b>Subject</b>	<b>Brief description</b>	<b>Applies to subpart CCCCCC</b>
§ 63.11(b)	Flares	Requirements for flares	No.
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§ 63.14	Incorporations by Reference	Test methods incorporated by reference	Yes.
§ 63.15	Availability of Information	Public and confidential information	Yes.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4184, Jan. 24, 2011]

**Resources**

EPA Gasoline Dispensing Facilities (GDF) Brochure, weblink: <http://www.epa.gov/ttn/atw/area/gdfb.pdf>

EPA Summary of Regulations Controlling Air Emissions from Gasoline Dispensing Facilities (GDF) Fact Sheet  
<http://www.epa.gov/ttn/atw/area/gdfb.pdf>

**Reference**

The US EPA Electronic Code of Federal Regulations - 40 CFR 63, Subpart CCCCCC National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities weblink:  
<http://www.ecfr.gov/cgi-bin/text-idx?SID=c0b79f2a205e76f9c12aee24090bff45&node=40:15.0.1.1.1.16&rqn=div6>

## Attachment E

### Federally Enforceable State Operating Permit (FESOP) Renewal

#### ARTICLE 8. VOLATILE ORGANIC COMPOUND RULES

NOTE: IC 13-1 and IC 13-7 were repealed by P.L.1-1996, SECTION 99, effective July 1, 1996.

#### Rule 10. Automobile Refinishing

##### 326 IAC 8-10-1 Applicability

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

Affected: IC 13-15; IC 13-17

Sec. 1. (a) This rule applies to any person who does the following:

(1) Sells, offers for sale, or manufactures for sale refinishing coatings or surface preparation products in the following:

(A) Clark, Floyd, Lake, or Porter County.

(B) All other counties on or after June 1, 2009.

(2) Owns, leases, operates, or controls a facility, as defined in 326 IAC 1-2-27, that refinishes motor vehicles, motor vehicle parts, motor vehicle components, or mobile equipment, as defined in section 2(25) and 2(26) of this rule, in the following:

(A) Clark, Floyd, Lake, or Porter County.

(B) All other counties on or after June 1, 2009.

(b) The following activities are exempt from this rule:

(1) Application of aerosol coating products.

(2) Graphic design application.

(3) Touch-up coating application.

(c) This rule does not apply to individuals who:

(1) own;

(2) lease;

(3) operate; or

(4) control;

a facility, as defined in 326 IAC 1-2-27, that refinishes three (3) or fewer motor vehicles per calendar year.

(d) The exemption provided by 326 IAC 8-2-9(b)(4) shall not exempt any facility from the requirements of this rule.

*(Air Pollution Control Board; 326 IAC 8-10-1; filed Oct 3, 1995, 3:00 p.m.: 19 IR 194; filed Jul 14, 1998, 5:04 p.m.: 21 IR 4518; filed Apr 23, 1999, 2:12 p.m.: 22 IR 2856; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA)*

##### 326 IAC 8-10-2 Definitions

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

Affected: IC 13-12

Sec. 2. The following definitions apply throughout this rule:

(1) "Adhesion promoter" means a coating:

(A) used to promote adhesion of a topcoat on surfaces such as:

(i) trim moldings;

(ii) door locks; and

(iii) door sills; or

(B) that provides adhesion to plastic substrates, where sanding is impracticable.

The term excludes primers, primer sealers, primer surfacers, and topcoats.

(2) "Aerosol coating products" means a mixture of:

(A) resins;

(B) pigments;

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

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

Where:  $VOC_{Tbc/cc}$  = VOC content as applied of the basecoat (bc) and clearcoat (cc) systems.  
 $VOC_{bc}$  = VOC content as applied of any given basecoat.  
 $VOC_{cc}$  = VOC content as applied of any given clearcoat.

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

- (16) "Equipment" means devices that are used to transfer or apply coating, surface preparation product, or solvent, such as, but not limited to, the following:
- (A) Spray guns.
  - (B) Brushes.
  - (C) Nonrefillable aerosol cans.
- (17) "Exempt compounds" means a nonphotochemically reactive hydrocarbon as defined in 326 IAC 1-2-48.
- (18) "Gloss flatteners" means coatings that are formulated to provide low gloss to match original equipment manufacturer's (OEM) specifications.
- (19) "Graphic design application" means the application of:
- (A) logos;
  - (B) letters;
  - (C) numbers; and
  - (D) graphics;
- to a painted surface, with or without the use of a template.
- (20) "Ground support" means vehicles used in support of aircraft activities at airports.
- (21) "Hardener" means an additive designed to promote a faster cure of coatings that cure by cross-linking of the resin components.
- (22) "High-volume, low-pressure (HVLP) spray" means technology used to apply coating to a substrate by means of coating application equipment that operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.
- (23) "Material safety data sheet" or "MSDS" means the chemical, physical, technical, and safety information document supplied by the manufacturer of the coating, solvent, or other chemical product, usually through the distribution network or retailers.
- (24) "Midcoat" means a semitransparent topcoat that is the middle topcoat applied as part of a three (3) stage topcoat system.
- (25) "Mobile equipment" means any equipment that may be driven or drawn on a roadway, including, but not limited to, the following:
- (A) Truck bodies.
  - (B) Truck trailers.
  - (C) Cargo vaults.
  - (D) Utility bodies.
  - (E) Camper shells.
  - (F) Construction equipment, such as the following:
    - (i) Mobile cranes.
    - (ii) Bulldozers.
    - (iii) Concrete mixers.
  - (G) Farming equipment, such as the following:
    - (i) Tractors.
    - (ii) Plows.
    - (iii) Pesticide sprayers.
  - (H) Miscellaneous equipment, such as the following:
    - (i) Street cleaners.
    - (ii) Golf carts.
    - (iii) Ground support vehicles.
    - (iv) Tow motors.
    - (v) Fork lifts.
- (26) "Motor vehicles" means the following:
- (A) Automobiles.
  - (B) Buses.
  - (C) Trucks.
  - (D) Vans.
  - (E) Motor homes.
  - (F) Recreational vehicles.
  - (G) Motorcycles.

- (27) "Multicolored topcoat" means a topcoat that:
- (A) exhibits more than one (1) color;
  - (B) is packaged in a single container; and
  - (C) camouflages surface defects on areas of heavy use, such as cargo beds and other surfaces of trucks and other utility vehicles.
- (28) "Multistage topcoat system" means any basecoat/clearcoat topcoat system or any three (3) stage topcoat system:
- (A) manufactured as a system; and
  - (B) used as specified by the manufacturer.
- (29) "Precoat" means any coating that is applied to bare metal primarily to deactivate the metal surface to provide corrosion resistance against a subsequent water-based primer.
- (30) "Pretreatment wash primer" means the first coat applied to bare metal if solvent-based primers will be applied. This coating:
- (A) contains a minimum of five-tenths percent (0.5%) acid by weight;
  - (B) is necessary to provide surface etching; and
  - (C) is applied directly to bare metal surfaces to provide corrosion resistance.
- (31) "Primer" means any coating applied to a substrate prior to the application of a topcoat for the purpose of providing any of the following:
- (A) Corrosion resistance.
  - (B) Adhesion of subsequent coatings.
  - (C) Color uniformity.
- (32) "Primer sealer" means any coating applied to a substrate prior to the application of a topcoat to:
- (A) provide:
    - (i) corrosion resistance;
    - (ii) adhesion of the topcoat; and
    - (iii) color uniformity; and
  - (B) promote the ability of an undercoat to resist penetration by the topcoat.
- (33) "Primer surfacer" means any coating applied to a substrate prior to the application of a topcoat to:
- (A) provide:
    - (i) corrosion resistance; and
    - (ii) adhesion of the topcoat; and
  - (B) promote a uniform surface by filling in surface imperfections.
- (34) "Reducer" means the solvent added to dilute a coating, usually for the purpose of lowering the viscosity of a coating.
- (35) "Refinishing" means any coating of motor vehicles, motor vehicle parts, motor vehicle components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and that is subsequent to the original coating applied at an original equipment manufacturing (OEM) plant coating assembly line.
- (36) "Refinishing job" means for each motor vehicle or piece of mobile equipment any or all of the following:
- (A) Surface preparation.
  - (B) Primer application.
  - (C) Primer surfacer application.
  - (D) Primer sealer application.
  - (E) Topcoat application.
- (37) "Repair coating" means a coating that is used in the repair of:
- (A) a motor vehicle;
  - (B) a motor vehicle part;
  - (C) a motor vehicle component; or
  - (D) mobile equipment.
- (38) "Reused on site" means the reuse of a:
- (A) coating;
  - (B) surface preparation product; or
  - (C) solvent;
- in the refinishing facility.

- (39) "Solvent" means a liquid containing VOCs that is used for:
- (A) dissolving or dispersing constituents in a coating;
  - (B) adjusting the viscosity of a coating; or
  - (C) cleaning application stations, equipment, or containers.
- (40) "Specialty coatings" means coatings that are necessary due to unusual and uncommon job performance requirements, including, but not limited to, the following:
- (A) Weld-through primers.
  - (B) Adhesion promoters.
  - (C) Uniform finish blenders.
  - (D) Elastomeric materials.
  - (E) Gloss flatteners.
  - (F) Bright metal trim repair.
  - (G) Anti-glare/safety coatings.
  - (H) Multicolored topcoat.
- (41) "Spot repairs" means repairs to motor vehicles in which the damaged area to be repaired is limited to only a portion of any given panel so that an entire panel need not be repaired.
- (42) "Substrate" means the surface onto which coatings or surface preparation products are applied.
- (43) "Surface preparation products" means products with VOC content greater than zero (0) used to remove:
- (A) wax;
  - (B) tar;
  - (C) grease; and
  - (D) other undesirable contaminants;
- from the surface to be refinished.
- (44) "Three (3) or four (4) stage topcoat system" means a topcoat system composed of a pigmented basecoat portion, a semitransparent midcoat portion, and a transparent clearcoat portion. The VOC content of a three (3) stage coating system shall be calculated according to the following formula:

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

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

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

- (45) "Topcoat" means the final film or series of films of coating applied to a substrate for the purpose of protection or appearance.
- (46) "Touch-up coating" means a coating applied by brush or hand-held, nonrefillable aerosol cans to repair minor surface damage and imperfections.
- (47) "Uniform finish blenders" means coatings that are utilized to ensure that the coatings applied during the refinishing of a vehicle imperceptibly blend in with the undamaged finish of repaired and undamaged portions of the:
- (A) motor vehicle;
  - (B) motor vehicle parts;
  - (C) motor vehicle components; or
  - (D) mobile equipment.
- (48) "VOC content" of coating or surface preparation products means the weight of VOC, less water, and less exempt compounds, per unit volume, of coating or surface preparation product.
- (49) "VOC content as applied" of coatings or surface preparation products means the VOC content of the coating or surface preparation product, as applied to the substrate.

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

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

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

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

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

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

Affected: IC 13-12

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

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

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

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

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

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

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

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

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

Affected: IC 13-12

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

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

For surface preparation products:

Type of Substrate	VOC Limit	
	grams/liter	lbs/gallon

Plastic	780	6.5
Other	168	1.4

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

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

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

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

- (1) is closed during:
  - (A) spray gun equipment cleaning operations except when depositing and removing objects to be cleaned; and
  - (B) noncleaning operations with the exception of the maintenance and repair of the cleaning device itself; and
- (2) recirculates cleaning solvent during the cleaning operation so that the solvent is available for reuse on site or for disposal off site.

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

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

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

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

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

- (1) All:
  - (A) paper;
  - (B) cloth;
  - (C) plastic; or
  - (D) other materials;

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

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

- (A) Solvents.
- (B) Coatings.
- (C) VOC-containing additives and materials.
- (D) VOC-containing waste materials.

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

- (A) cracks;
- (B) holes; and
- (C) leaks.



- (4) Waste coatings and used automotive fluids shall be stored in closed containers.
- (5) Equipment cleanup shall be performed with methods that minimize the use of solvents. Reasonable efforts shall be made to reclaim the bulk of used solvents. No cleaning shall be performed by direct spraying of solvents into the atmosphere.
- (6) Effort shall be made to schedule operations of a similar nature to significantly reduce total VOC material consumption.
- (7) Coatings or surface preparation products shall be applied in a manner that minimizes overspray.
- (d) The owner or operator of a refinishing facility subject to this rule shall comply with the training requirements of this rule as follows:
- (1) Develop a written training program. The training program may include training provided by the manufacturer or supplier and shall include written procedures and hands-on demonstration, as appropriate, on the following topics:
- (A) Identification of appropriate coatings or surface preparation products.
  - (B) Preparation of coatings or surface preparation products according to coating manufacturer, distributor, or owner or operator's recommendations.
  - (C) Application of coatings or surface preparation products or organic solvents using techniques that minimize their usage.
  - (D) Operation and maintenance of spray gun cleaning equipment to minimize evaporation of organic solvents to the atmosphere.
  - (E) Work practice standards established in subsection (c).
  - (F) Procedures to:
    - (i) gather;
    - (ii) record;
    - (iii) monitor; and
    - (iv) report;data in accordance with section 9 of this rule.
- (2) Provide annual refresher training prior to May 1 of each year to any employee performing one (1) or more of the activities listed in subdivision (1). The training shall be appropriate to the job responsibilities of the employee.
- (3) Any person may perform one (1) or more activities addressed in subdivision (1), for not more than one hundred eighty (180) days, notwithstanding the requirement of subdivision (2), provided each of the following:
- (A) The untrained person works under the supervision of a person who meets the training requirements of subdivision (2).
  - (B) The owner or operator keeps the following records:
    - (i) The date the person was assigned to the activity.
    - (ii) The date training was completed.
    - (iii) The name of the person providing the supervision.
- (4) The owner or operator of the refinishing operation subject to this rule shall keep records of the training program. The records shall consist of the following:
- (A) The date training was completed.
  - (B) A list of persons, by name and activity and the topics in which they have been trained.
  - (C) A statement signed by the trainer certifying each trainee who satisfactorily has completed training in the topics and is proficient in the procedures specified in subdivision (1).
- (Air Pollution Control Board; 326 IAC 8-10-5; filed Oct 3, 1995, 3:00 p.m.: 19 IR 198; errata filed Dec 11, 1995, 3:00 p.m.: 19 IR 674; filed Jul 14, 1998, 5:04 p.m.: 21 IR 4518; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA)*

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

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

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

the owner or operator of a refinishing facility with a written record or document containing the following coating or surface preparation product information:

- (1) Product description.
  - (2) Date of manufacture, date code, or batch number.
  - (3) Thinning instructions.
  - (4) The VOC content in grams per liter and pounds per gallon, as packaged or as supplied:
    - (A) for single coat products, the VOC as applied after any thinning recommended by the manufacturer; or
    - (B) for multistage systems in which the VOC as applied is dependent upon the VOC content of a combination of products with varying VOC levels, provide:
      - (i) a list of the maximum allowable packaged VOC for the individual layers;
      - (ii) a comprehensive chart of color combinations and the as-applied VOC content; or
      - (iii) a simple to use formula or grid for the end user to calculate the as-applied VOC content of their multistage system.
  - (5) A statement that the coating is, or is not, in compliance with the VOC limits in section 4(a) of this rule.
  - (6) The:
    - (A) name;
    - (B) address;
    - (C) telephone number; and
    - (D) signature;of the person purchasing the product.
- (b) Any person who is engaged in commercially providing coatings or surface preparation products in Indiana shall provide to the recipient and shall keep the following records of all coatings or surface preparation products supplied. The records shall include the following:
- (1) The product description.
  - (2) The amount supplied.
  - (3) The date supplied, date code, or batch number.
  - (4) The VOC content in grams per liter and pounds per gallon, as packaged or as supplied:
    - (A) for single coat products, the VOC as applied after any thinning recommended by the manufacturer; or
    - (B) for multistage systems in which the VOC as applied is dependent upon the VOC content of a combination of products with varying VOC levels, provide:
      - (i) a list of the maximum allowable packaged VOC for the individual layers;
      - (ii) a comprehensive chart of color combinations and their as-applied VOC content; or
      - (iii) a simple to use formula or grid for the end user to calculate the as-applied VOC content of their multistage system.
  - (5) The:
    - (A) name;
    - (B) address;
    - (C) telephone number; and
    - (D) signature;of the person purchasing the product.
- (c) The owner or operator of a refinishing facility subject to this rule shall submit to the department a statement signed by a responsible official of the facility certifying that the facility has acquired and will continuously employ coatings or surface preparation products meeting the VOC limits of section 4(a) of this rule. (*Air Pollution Control Board; 326 IAC 8-10-6; filed Oct 3, 1995, 3:00 p.m.: 19 IR 199; filed Jul 14, 1998, 5:04 p.m.: 21 IR 4519; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA*)

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

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

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

(b) Owners or operators may use data provided with coatings or surface preparation products formulation information such as the:

- (1) container label;
- (2) product data sheet; and
- (3) MSDS sheet;

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

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

### **326 IAC 8-10-8 Control system operation, maintenance, and monitoring (Repealed)**

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

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

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

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

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

(2) For each surface preparation product used, the following information:

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

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

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

- (1) Records of training programs as required in section 5(d) of this rule.
- (2) Initial compliance statements as required in section 6(c) of this rule.
- (3) Records as required in this section.
- (c) Owners or operators of refinishing facilities subject to this rule shall:
  - (1) maintain all records for a minimum of three (3) years; and
  - (2) make records available to the department and the U.S. EPA upon request.
- (d) Failure to maintain records required by subsections (a) and (b) shall constitute a violation of this rule for each day records are not maintained.
- (e) Owners or operators of refinishing facilities subject to this rule shall report within thirty (30) days to the department the following:
  - (1) Any incidence in which noncompliant coating was used.
  - (2) The reasons for use of the noncompliant coating.
  - (3) Corrective actions taken.

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

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

Addendum to the Technical Support Document (ATSD) for a  
Federally Enforceable State Operating Permit (FESOP) Renewal with  
New Source Review (NSR)

**Source Background and Description**

<b>Source Name:</b>	Pendleton Correctional Facility
<b>Source Location:</b>	4490 W. Reformatory Road, Pendleton, Indiana 46064
<b>County:</b>	Madison
<b>SIC Code:</b>	9223 (Correctional Institutions)
<b>Permit Renewal No.:</b>	F095-32852-00006
<b>Permit Reviewer:</b>	Hannah L. Desrosiers

On November 18, 2014, the Office of Air Quality (OAQ) had a notice published in the Herald Bulletin, Anderson, Indiana, stating that Pendleton Correctional Facility had applied for a new source review and renewal of its FESOP. The notice also stated that the OAQ proposed to issue a New Source Review (NSR) and FESOP Renewal 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**

No comments were received during the public notice period.

**Additional Changes**

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD and supporting documents, but the Permit will contain the changes documented in this ATSD.

1. The maximum heat input capacity of the wood-fired boiler, identified as Boiler B-1, was revised from 27.5 to 29.18 Million British thermal units per hour (MMBtu/hr) as a part of this permitting action. This change resulted from the most recent valid stack test, which occurred on February 11, 2014. This change affected the following existing conditions:
  - A. Condition A.2 - Emission Unit Descriptions;
  - B. Section D - Emission Unit Descriptions; and
  - C. Condition D.1.2 - Particulate.
  
2. The Federal New Source Performance Standards (NSPS) for Subpart Dc for the dual fuel-fired boiler, identified as Boiler B-5, were revised/updated as a part of this permitting action. Documentation of these changes was unintentionally omitted from the review contained on pages 17 and 18 of 120 of the TSD. This is corrected as follows:

**Federal Rule Applicability**

*New Source Performance Standards (NSPS)*

- (a) 40 CFR 60, Subpart Dc - NSPS for Small Industrial-Commercial-Institutional Steam Generating Units

\*\*\*\*\*

- (3) The existing natural gas and No. 2 fuel oil-fired boiler (B-5) is still subject to the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12-1), because it was initially constructed in 1995 [after the rule applicability date of June 9, 1989], has never been modified or reconstructed, meets the definition of a steam generating unit, in that it combusts fuel to heat water or another heat transfer media, and has a maximum design heat input capacity greater than 10 MMBtu/hr but less than 100 MMBtu/hr.

The facility subject to this rule includes the following:

- One (1) dual fuel-fired boiler, identified as Boiler B-5, constructed in 1995, with a maximum heat input capacity of 61.89 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-5.

Boiler B-5 is therefore subject to the following applicable portions of Subpart Dc (included as Attachment A of the permit), as follows:

- (1) 40 CFR 60.40c (a), (b), (c), (d);
- (2) 40 CFR 60.41c;
- (3) 40 CFR 60.42c(d), (g), (h)(1), ~~(h)(4)~~, **and (i)-(j)**;
- (4) 40 CFR 60.43c(c)**;
- (5) 40 CFR 60.44c (a), (b), (d), (g), and (h)-(i)**;
- (5) 40 CFR 60.46c(e); and
- (6) 40 CFR 60.48c(a)(1), (a)(2), (a)(3), (a)(4), (b), **(c)**, (d), (e)(1), (e)(2), (e)(3), (e)(4), (e)(5), (e)(6), (e)(11), (f)(1)(i), (f)(1)(ii), (f)(1)(iii), (g)(1), **(g)(2), (g)(3), (i), and (j)**;

*Note: See 40 CFR 60.40c for compliance determination/demonstration requirements.*

3. IDEM, OAQ has decided to make additional revisions to the permit, as described, as follows:
- A. The language contained in permit conditions D.1.1(b) and D.1.8, has been revised to clarify that the emissions limits apply at all times, regardless of whether Pendleton Correctional Facility fires only one single fuel in any of the boilers, different fuels in each of the boilers, or only fires fuel in a few of the boilers and none in the rest, in any given 12 month period;
  - B. The references contained in permit conditions D.1.7, D.1.9, and D.1.10, have been corrected to reflect the addition of the new condition D.1.2 - Startup, Shutdown, and Other Opacity Limits; and
  - C. The language contained in permit condition D.1.13 - Record Keeping Requirements has been revised for clarity.

The Permit has been revised as follows, with deleted language shown as ~~strikeouts~~ and new language **bolded**. Permit conditions and the Table of Contents have been renumbered as needed to accommodate the above-listed revisions.

- D.1.1 FESOP and PSD Minor Limits: SO<sub>2</sub>, NO<sub>x</sub>, and CO [326 IAC 2-8-4] [326 IAC 2-2] [326 IAC 4-2] [326 IAC 12] [40 CFR 60, Subpart AAAA] [40 CFR 60, Subpart CCCC] [40 CFR 63, Subpart EEE]

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Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD), , 326 IAC 4-2 (Incinerators), and 326 IAC 12 (40 CFR 60, Subpart AAAA, 40 CFR 60, Subpart CCCC, and 40 CFR 63, Subpart EEE) not applicable, the Permittee shall comply with the following:

\* \* \* \* \*

(b) Multiple Fuel Usage Limitations

~~When combusting more than one fuel per twelve (12) consecutive month period in Boilers B-4 and B-5,~~ emissions **Emissions** from Boilers B-1 through B-5 shall be limited as follows:

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

D.1.7 Sulfur Dioxide (SO<sub>2</sub>) Emissions and Sulfur Content

Compliance with the fuel limitations established in Conditions D.1.1(a)(4) and ~~D.1.3~~, **D.1.4** shall be determined utilizing one of the following options. Pursuant to 326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements) and 326 IAC 3-7-4 (Fuel oil sampling; analysis methods), compliance shall be demonstrated on a thirty (30) day calendar-month average.

\* \* \* \* \*

D.1.8 Multiple-Fuel Usage

In order to determine compliance with Condition D.1.1(b), ~~when combusting more than one fuel per twelve (12) consecutive month period in Boilers B-1 through B-5,~~ the Permittee shall calculate the combined emissions from Boilers B-1 through B-5, using the following formulas:

\* \* \* \* \*

D.1.9 Particulate Control (PM/PM10/PM2.5)

In order to comply with Condition ~~D.1.2~~, **D.1.3**, the cyclone for particulate control shall be in operation and control emissions from the wood-fired boiler (B-1) at all times that the wood-fired boiler is in operation.

D.1.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [326 IAC 6-2]

In order to demonstrate compliance with Condition ~~D.1.2~~, **D.1.3**, the Permittee shall perform PM emissions testing of the cyclone serving Wood-fired Boiler B-1 not later than five (5) years from the most recent valid compliance demonstration, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). A representative sample of the wood fuel shall be collected for each stack test run and analyzed to determine percent (%) moisture content and the higher heating value (HHV) expressed as MMBtu/ton. Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

\* \* \* \* \*

D.1.13 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.1, D.1.4, D.1.6, D.1.7, and D.1.8, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) below shall be taken monthly and shall be complete and sufficient to establish compliance with the limits established in Conditions D.1.1, D.1.4, D.1.6, D.1.7, and D.1.8.

\* \* \* \* \*

(25) Wood chip analysis results or wood supplier certification(s) that demonstrate that the wood chips meets the specifications **established** under Conditions D.1.1(a)(2) and **as required by Condition D.1.6(a)1(a)(3)**. If the wood supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:

\* \* \* \* \*

(C) A statement from the wood supplier that certifies that the wood chips meets the specifications under Condition D.1.1(a)(2) ~~and D.1.1(a)(3)~~.

(3) **Heat content (Higher Heating Value (HHV)) of the wood combusted in Boiler B-1, as used in the compliance determination equations contained in Condition D.1.8, established to determine compliance with Condition D.1.1(b);**

- (42) ~~Actual fuel usage, sulfur content, and heat content, and equivalent sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO) emission rates for the No. 2 each fuel oil combusted in Boilers B-41 through and B-5 since the last compliance determination period;~~
- (5) **Actual fuel usage for each fuel combusted in Boilers B-1 through B-5 since the last compliance determination period;**
- (6) **Equivalent sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO) emission rates for each fuel combusted in Boilers B-1 through B-5 since the last compliance determination period;**
- (74) If the fuel supplier certification is used to demonstrate compliance **with the limitations established under Conditions D.1.4 and D.1.1(a)(4) as required by Condition D.1.7**, the following, as a minimum, shall be maintained:
- \*\*\*\*\*
- (83) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted in Boilers B-1 through B-5 during the **compliance determination** period.; ~~and~~

\*\*\*\*\*

No other changes have been made to the permit.

<b>IDEM Contact</b>
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- (a) Questions regarding this proposed permit can be directed to Ms. Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-9327 or toll free at 1-800-451-6027 extension 3-9327.
- (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 Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.



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

Technical Support Document (TSD) for a  
Federally Enforceable State Operating Permit (FESOP) Renewal with  
New Source Review (NSR)

<b>Source Background, Description, and Location</b>
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<b>Source Name:</b>	Pendleton Correctional Facility
<b>Source Location:</b>	4490 W. Reformatory Road, Pendleton, Indiana 46064
<b>County:</b>	Madison
<b>SIC Code:</b>	9223 (Correctional Institutions)
<b>Permit Renewal No.:</b>	F095-32852-00006
<b>Permit Reviewer:</b>	Hannah L. Desrosiers

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Pendleton Correctional Facility relating to the continued operation of an existing stationary correctional institution.

On July 03, 2012, Pendleton Correctional Facility (Pendleton) submitted an application to the OAQ requesting the following changes be made to the permit:

1. Pendleton requests the following three (3) correctional facilities in Pendleton, Indiana be permitted as one (1) source:
  - A. The Pendleton Correctional Facility (IR), located at 4490 W. Reformatory Road;
  - B. The Correctional Industrial Facility (CIF), located at 5124 W. Reformatory Road; and
  - C. The Pendleton Juvenile Correctional Facility (PJCF), located at 9310 South State Road 67.
2. Pendleton requests the permit be revised to reflect that the existing biomass-fired boiler (B-1) will combust only clean, dry, untreated, wood chips. Additionally, the 1.075 MMBtu per hour natural gas-fired ignition burner for cold boiler starts has been physically removed from the boiler and Pendleton no longer wishes the flexibility to use untreated corn, wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris. Finally, the corresponding biomass handling and storage operations, and ash disposal systems, should be revised to reflect this change.
3. Pendleton requests the maximum heat input capacities of boilers B-4 and B-5 be corrected;
4. Pendleton requests that two (2) existing diesel fuel-fired emergency generators, located at IR and PJCF, be added to the permit; and
5. Pendleton requests the following, existing, insignificant emission units be added to the permit:
  - A. Two (2) diesel fuel-fired emergency generators, located at CIF;
  - B. Multiple natural gas-fired combustion units, located at IR, CIF, and PJCF;
  - C. Grinding operations, located at CIF;
  - D. Two (2) CNC Machines using coolant, located at CIF;
  - E. Surface coating operations (autobody refinishing), located at IR;
  - F. Three (3) arc welding stations, located at CIF; and
  - G. Fuel dispensing facilities and storage tanks, located at CIF and PJCF.

These changes are intended to bring the permit up to date with Pendleton's current operating status; and

Additionally, on February 21, 2013, Pendleton Correctional Facility (Pendleton) submitted an application to the OAQ requesting the renewal of its operating permit.

Finally, on July 28, 2014, Pendleton Correctional Facility (Pendleton) submitted an application to the OAQ requesting approval to add one (1) new portable abrasive blast unit and diesel-fired air compressor for use in construction and demolition activities.

Due to the nature of the changes requested by Pendleton, IDEM has determined that each of the permit revision and renewal applications could be combined into one (1) permitting action, and a single permit and set of technical support documents be issued. This combined renewal and new source review incorporates multiple Title I changes, which are indicated throughout this technical support document.

Pendleton Correctional Facility was issued its first FESOP Renewal, No. F095-16603-00006, on October 28, 2003.

### Source Definition

The Pendleton Correctional complex is composed of three plants, the Pendleton Correctional Facility (IR) (source #095-00006), the Correctional Industrial Facility (CIF) (source #095-00104), and the Pendleton Juvenile Correctional Facility (PJCF). All three plants are located on the same property. IDEM, OAQ has examined whether these plants should be considered one (1) "major source" as defined at 326 IAC 2-7-1(22). In order for two or more plants to be considered one (1) major source, they must meet all three of the following criteria:

1. the plants must be under common ownership or common control;
2. the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one (1) must serve as a support facility for the other; and
3. the plants must be located on contiguous or adjacent properties.

All of the plants are owned by the State of Indiana and are operated by the Indiana Department of Corrections (IDOC). PEN Products, a separate division of IDOC, operates the Correctional Industrial Facility. Therefore, all three plants have common ownership and common control, meeting the first element of the major source definition.

The SIC Code Manual of 1987 sets out how to determine the proper SIC Code for each type of business. More information about SIC Codes is available at [http://www.osha.gov/pls/imis/sic\\_manual.html](http://www.osha.gov/pls/imis/sic_manual.html) on the Internet. Each plant is assigned an industry code on the basis of its primary activity. The Pendleton Correctional Facility and the Pendleton Juvenile Correctional Facility have the two-digit SIC Code, 92, for the major group Justice, Public Order and Safety. This major group includes the four-digit SIC Code 9223 for Correction Institutions. Correctional Institutions are defined as government units primarily engaged in the confinement and correction of offenders sentenced by a court. SIC Code 9223 includes governmental correctional institutions, government run prisons and government run prison farms.

Although the Correctional Industrial Facility, operated by PEN Products, produces furniture, PEN Products' mission is to employ offenders within the Indiana Department of Correction, teaching them marketable skills and a work ethic while operating in a self-sustaining manner. PEN Products is a self-funded re-entry program for the Indiana Department of Correction. Prison furniture making is not individually listed in the SIC Code Manual. PEN Products activity, preparing offenders for re-entry into society, is best described by SIC Code 9223, under the two-digit SIC Code 92. Therefore, all three plants have the same two-digit SIC Code, 92, for the major group Justice, Public Order and Safety.

A plant is a support facility to another plant if it dedicates 50% or more of its output to another plant. The Pendleton Correctional Facility has five boilers that provide heat to the other two plants. However, neither plant receives 50% of this heat output; therefore, there is no support relationship. However, since all three plants have the same two digit SIC Code they all meet the second part of the major source definition.

All three plants share common property boundaries, making them contiguous properties, meeting the third part of the major source definition.

Since all three plants meet all the parts of the major source definition, IDEM, OAQ has determined that the Pendleton Correctional Facility, the Correctional Industrial Facility, and the Pendleton Juvenile Correctional Facility are part of the same major source.

<b>Permitted Emission Units and Pollution Control Equipment</b>
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The source consists of the following permitted emission units:

***Pendleton Correctional Facility (IR)***

- (a) One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (b) One (1) natural gas-fired boiler, identified as Boiler B-2, constructed in 1961 as a coal-fired boiler and modified in 1998 to burn only natural gas, with a maximum heat input capacity of 79.13 million British thermal units per hour, with emissions exhausting to stack S-B-2.
- (c) One (1) natural gas-fired boiler, identified as Boiler B-3, constructed in 1968 as a coal-fired boiler, and modified in 1998 to burn only natural gas, with a maximum heat input capacity of 98.9 million British thermal units per hour, with emissions exhausting to stack S-B-3.
- (d) One (1) dual fuel-fired boiler, identified as Boiler B-4, constructed in 1983, with a maximum heat input capacity of 41.00 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-4.

Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (e) One (1) dual fuel-fired boiler, identified as Boiler B-5, constructed in 1995, with a maximum heat input capacity of 61.89 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-5.

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (f) One (1) wood chip handling and storage operation, identified as IR-WCHS, constructed in 2007, modified in 2008, and consisting of the following:
- (1) One (1) truck unloading operation with a maximum throughput of 18,400 pounds of wood chips per hour.

- (2) One (1) wood chip storage silo, with a maximum storage capacity of 220,000 pounds of wood chips (volumetric capacity 10,598 cubic feet), with emissions controlled by a baghouse.
- (3) One (1) wood chip handling system with a maximum throughput of 3,000 pounds of wood chips per hour, with emissions controlled by a baghouse, including: six (6) augers, one (1) conveyor, one (1) bucket elevator, and one (1) metering bin.
- (g) One (1) autobody refinishing operation, identified as IR-ARO, constructed in 1961, located in the autobody shop, using airless spray application methods to apply a maximum of 0.04 gallons of coatings per hour, and 3.08 gallons per day, to metal automobile bodies, uncontrolled, and exhausting inside the building;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected autobody refinishing operation.

#### **Emission Units and Pollution Control Equipment Constructed and Operated without a Permit**

The source also consists of the following emission units that were constructed and/or are operating without a permit:

##### ***Pendleton Correctional Facility (IR)***

- (a) One (1) 2,922 Hp diesel fuel-fired emergency generator, identified as G-1, constructed in 2002, uncontrolled, and exhausting to the atmosphere;

##### ***Pendleton Juvenile Correctional Facility (PJCF)***

- (c) One (1) 1,900 Hp diesel fuel-fired emergency generator, identified as G-4, constructed in 2000, uncontrolled, and exhausting to the atmosphere;

#### **Emission Units and Pollution Control Equipment Removed From the Source**

The source has removed the following emission units:

- (a) Covered conveyors for coal or coke conveying of less than or equal to 360 tons per day; and
- (b) Diesel generators not exceeding 1600 horsepower.

#### **Insignificant Activities**

The source also consists of the following insignificant activities:

##### ***Pendleton Correctional Facility (IR)***

- (a) One (1) enclosed ash disposal system, identified as IR-AWD, approved for construction in 2007, with a maximum throughput of 500 pounds of ash per hour, uncontrolled, exhausting to the atmosphere, and including: four (4) augers and one (1) covered dumpster.
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, including five (5) cold cleaner degreaser units, collectively identified as the Parts Washers, constructed after July 1, 1990; [326 IAC 8-3-2]
- (c) A gasoline fuel transfer and dispensing operation, identified as IR-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 100 gallon moveable gasoline transfer tank, identified as IR-AST1, constructed in 1983, uncontrolled, and venting to the atmosphere;

Under 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, the gasoline fuel transfer and dispensing operation is considered an affected facility.

- (d) Equipment related to manufacturing activities not resulting in the emission of HAPs: including brazing equipment, cutting torches, soldering equipment, and/or welding equipment, as follows:
  - (1) One (1) submerged arc welding (SAW) station, with a maximum electrode consumption of 1.35 lbs/hr, uncontrolled, and exhausting inside the building;
  - (2) Four (4) Metal Inert Gas (MIG) (carbon steel) welding stations, with a maximum electrode consumption of 0.5 lbs/hr, each, uncontrolled, and exhausting inside the building;
  - (3) Two (2) Tungsten Inert Gas (TIG) (carbon steel) welding stations, with a maximum electrode consumption of 0.5 lbs/hr, each, uncontrolled, and exhausting inside the building; and
  - (4) One (1) plasma cutting station, cutting a maximum of 0.75 inch metal thickness at a maximum rate of 48 inches per minute, uncontrolled, and exhausting inside the building.
  
- (e) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
  - (1) Four (4) natural gas-fired radiant heaters, identified as B-20 through B-23, constructed in 1985, with a maximum heat input capacity of 0.10 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
  - (2) One (1) natural gas-fired furnace, identified as B-24, constructed in 1985, with a maximum heat input capacity of 0.075 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;
  - (3) Two (2) natural gas-fired force air space heaters, identified as B-25 and B-26, constructed in 1985, with a maximum heat input capacity of 0.05 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
  - (4) One (1) natural gas-fired office space heater, identified as B-27, constructed in 1985, with a maximum heat input capacity of 0.135 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;
  - (5) One (1) natural gas-fired shop space heater, identified as B-28, constructed in 1985, with a maximum heat input capacity of 0.196 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;
  - (6) One (1) natural gas-fired hot water heater, identified as B-29, constructed in 1985, with a maximum heat input capacity of 0.075 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  
- (f) One (1) Petroleum fuel, other than gasoline, dispensing facility, identified as IR-DDF, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, including one (1) 500 gallon moveable diesel fuel oil transfer tank on a trailer, identified as IR-AST2, constructed in 1983, uncontrolled, and venting to the atmosphere.

**Correctional Industrial Facility (CIF)**

- (g) Two (2) 890 Hp diesel fuel-fired emergency generators, identified as G-2 and G-3, constructed in 1991, uncontrolled, and exhausting to the atmosphere;

(h) A fuel dispensing station, consisting of:

- (1) A gasoline fuel transfer and dispensing operation, identified as CIF-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 5,000 gallon aboveground gasoline storage tank, identified as CIF-AST1, approved in 2014 for construction, uncontrolled and venting to the atmosphere;

Under 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, the gasoline fuel transfer and dispensing operation is considered an affected facility.

- (2) One (1) petroleum fuel, other than gasoline, dispensing facility, identified as CIF-DFD, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, including;

- (1) One (1) 5,000 gallon aboveground diesel fuel oil storage tank, identified as CIF-AST2, approved in 2014 for construction, uncontrolled, and venting to the atmosphere;
- (2) One (1) 2,000 gallon aboveground diesel fuel oil storage tank, identified as CIF-AST3, approved in 2014 for construction, uncontrolled and venting to the atmosphere; and
- (3) One (1) 1,000 gallon aboveground diesel fuel oil storage tank, identified as CIF-AST4, constructed in 2014, uncontrolled, and venting to the atmosphere; and

This tank was initially constructed at PJCF in 2000 and moved to CIF in July 2014.

(i) Equipment related to manufacturing activities not resulting in the emission of HAPs: including brazing equipment, cutting torches, soldering equipment, and/or welding equipment, as follows:

- (1) Three (3) submerged arc welding (SAW) stations, with a maximum electrode consumption of 0.84 lbs/hr, each, uncontrolled, and exhausting inside the building;

(j) Metal machining operations, including the following:

- (1) Three (3) grinding stations for machining steel brake shoe frames, identified as CIF-MGS1 through CIF-MGS3, with a maximum combined throughput capacity of 1,200 lbs of frames per hour, combined, uncontrolled, and exhausting inside the building;
- (2) Metal machining where an aqueous cutting coolant continuously floods the machining interface, including: two (2) CNC machines, identified as R-1 and R-2, for drilling holes in steel brake shoe frames, with a combined maximum throughput capacity of 1,800 frames per day, and a combined maximum usage of 75 gallons of HAP-free coolant per year;

(k) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:

- (1) Five (5) natural gas-fired laundry dryers, identified as B-38 through B-42, constructed in 2009, with a maximum heat input capacity of 0.30 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;

**Note:** According to the source, no printer or shop towels, as defined as follows, are processed in natural gas-fired laundry dryers B-38 through B-42.

*Printer Towels* include, but are not limited to, towels, wipers, and rags that are soiled with high volatility VOC and/or HAP-containing materials that primarily include, but are not limited to, inks, extenders, diluents, fountain solutions,

*fountain solution additives, blanket washes, adhesives, pigments, fillers, coatings, varnishes, high volatility solvents and solutions, and other miscellaneous chemicals. Soiled Printer Towels are primarily generated by industries that include, but are not limited to, printing, wood furniture/products manufacturing, industries that clean or degrease equipment/products with solvents, and other similar industries.*

***Shop Towels** include, but are not limited to, towels, wipers, and rags soiled with low volatility VOC and/or HAP-containing materials that primarily include, but are not limited to, oils, lubricants, and greases, other protective coatings, adhesives, low volatility solvents and solutions, and other miscellaneous chemicals. Soiled Shop Towels are primarily generated by industries that include, but are not limited to, petroleum refining and transportation, manufacturing, automotive maintenance/service/repair, equipment maintenance/service/repair, industries that clean, degrease, and/or lubricate equipment/products, and other similar industries.*

- (2) Eight (8) natural gas-fired baking ovens, identified as B-44 through B-51, constructed in 1985, with a maximum heat input capacity of 0.06 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
- (3) Four (4) natural gas-fired cooking griddles, identified as B-52 through B-55, constructed in 1985, with a maximum heat input capacity of 0.162 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
- (4) One (1) natural gas-fired large cooking oven, identified as B-56, constructed in 1985, with a maximum heat input capacity of 0.25 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;

#### ***Pendleton Juvenile Correctional Facility (PJCF)***

- (l) One (1) petroleum fuel, other than gasoline, dispensing facility, identified as PJCF-DFD, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, including one (1) 3,400 gallon diesel fuel oil storage tank, identified as PJCF-AST1, constructed in 2000, uncontrolled, and venting to the atmosphere.
- (m) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
  - (1) Two (2) natural gas-fired hot water boilers, identified as B-6 and B-7, constructed in 2000, with a maximum heat input capacity of 1.44 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (2) Eight (8) natural gas-fired boilers, identified as B-8 through B-15, constructed in 2000, with a maximum heat input capacity of 0.25 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (3) Two (2) natural gas-fired boilers, identified as B-16 and B-17, constructed in 2000, with a maximum heat input capacity of 1.44 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (4) Two (2) natural gas-fired hot water boilers, identified as B-18 and B-19, constructed in 2000, with a maximum heat input capacity of 0.5 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (5) Six (6) natural gas-fired hot water heaters, identified as B-30 and B-32 through B-36, constructed in 2000, with a maximum heat input capacity of 1.26 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]

- (6) One (1) natural gas-fired hot water heater, identified as B-31, constructed in 2000, with a maximum heat input capacity of 0.99 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (7) One (1) natural gas-fired hot water heater, identified as B-37, constructed in 2000, with a maximum heat input capacity of 1.8 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (8) One (1) natural gas-fired laundry dryer, identified as B-43, constructed in 2000, with a maximum heat input capacity of 0.3 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; and
- (9) One (1) natural gas-fired air handling unit, identified as B-57, constructed in 2000, with a maximum heat input capacity of 0.1 MMBtu/hr, uncontrolled, and exhausting to the atmosphere.

**Activities Common to All Three (3) Locations**

- (n) Paved and unpaved roads and parking lots with public access; [326 IAC 6-4]
- (o) Activities related to routine fabrication, maintenance, and repair of buildings, structures, equipment, or vehicles at the source where air emissions from those activities would not be associated with any commercial production process, including the following:
  - (1) Activities associated with the repair and maintenance of paved and unpaved roads, including paving or sealing, or both, of parking lots and roadways.
  - (2) Painting, including interior and exterior painting of buildings, and solvent use excluding degreasing operations utilizing halogenated organic solvents.  
*(Note: this category includes the IR paint shop which uses brush application methods to apply surface coatings for maintenance purposes)*
  - (3) Brazing, soldering, or welding operations and associated equipment.
  - (4) Batteries and battery charging stations except at battery manufacturing plants.
  - (5) Lubrication, including the following:
    - (A) Hand-held spray can application of lubrication;
    - (B) Dipping metal parts into lubricating oil; and
    - (C) Manual or automated addition of cutting oil in machining operations.
  - (6) Tarring, re-tarring, and repair of building roofs.
- (p) Activities performed using hand-held equipment, including the following:
  - (1) Application of hot melt adhesives with no VOC in the adhesive formulation;
  - (2) Buffing;
  - (3) Cutting, excluding cutting torches;
  - (4) Drilling;
  - (5) Grinding;
  - (8) Routing;
  - (9) Sanding;
  - (10) Sawing;
  - (11) Surface grinding;



- (6) Machining wood, metal, or plastic;
- (7) Polishing;
- (12) Turning wood, metal, or plastic;
- (q) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (r) Filling drums, pails or other packaging containers with lubricating oils, waxes, and greases;
- (s) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings;
- (t) Closed loop heating and cooling systems;
- (u) Blowdown for any of the following: sight glass, boiler, cooling tower, compressors, and pumps;
- (v) Activities associated with emergencies, including the following:
  - (1) On-site fire and emergency response training approved by the department; and
  - (2) Stationary fire pumps;
- (w) Lawn care and landscape maintenance activities and equipment, including the storage, spraying, or application of insecticides, pesticides, and herbicides.
- (x) Construction and demolition operations at the source where air emissions from those activities would not be associated with any commercial production process, including the following equipment and activities:
  - (i) One (1) portable grit blasting unit, identified as GB-2, approved in 2014 for use in construction and demolition operations, with a maximum throughput capacity of 458.2 pounds of coal slag blasting media per hour, operating a maximum of 1,170 hours per twelve (12) consecutive month period, uncontrolled and exhausting to the outdoors; [326 IAC 2-7-1(42)(S)(xi)
  - (2) One (1) 225 Hp, portable, diesel-fired air compressor, identified as GB-2a, approved in 2014 for use in construction and demolition operations, operating a maximum of 1,170 hours per twelve (12) consecutive month period, uncontrolled and exhausting to the outdoors. [326 IAC 2-7-1(42)(S)(xi)

Under 40 CFR 1068.30, General Compliance Provisions for Highway, Stationary, and Nonroad Programs, this unit is considered a nonroad engine.

### Existing Approvals

Since the issuance of FESOP Renewal No. F095-16603-00006 on October 28, 2003, the source has constructed or has been operating under the following additional approvals:

- (a) Significant Permit Revision No. 095-24743-00006, issued on November 30, 2007;
- (b) Significant Permit Revision No. 095-26417-00006, issued on July 16, 2008; and
- (c) Administrative Amendment No. 095-27581-00006 issued on April 08, 2009.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

**Enforcement Issue**

In accordance with 326 IAC 2-8-3(h), a timely renewal application is one that is submitted at least nine (9) months prior to the expiration date of the source's existing operating permit. This source's existing permit expiration date was October 28, 2013. The source's permit renewal application was received by IDEM on February 21, 2013, which is less than nine (9) months prior to the expiration date. IDEM has reviewed this matter and taken appropriate action.

Additionally, the Permittee has operated an autobody refinishing facility (constructed in 1961) that refinishes more than three (3) motor vehicles per year, which is subject to the requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63, Subpart HHHHHH (6H) (326 IAC 20) and 326 IAC 8-10 (Automobile Refinishing). IDEM has reviewed this matter and taken appropriate action. This draft FESOP Renewal contains provisions to bring this and other previously unpermitted equipment and activities into compliance with construction and operation permit rules.

**Emission Calculations**

- (a) See Appendices A.1, A.2, and A.3 of this TSD for detailed emission calculations.
- (b) As part of this renewal, the potential to emit (PTE) calculations have been updated as follows:
  - (1) During this review, the emissions calculations were updated to reflect the source's most current "worst-case" operating conditions for all units, and includes emissions not previously counted. Additionally, since OAQ relies on the most up-to-date emission factors recommended by U.S. EPA, facility emissions have been characterized using the most recent version of U.S. EPA's AP-42.
  - (2) The PM10 and PM2.5 emission factors for Wood Waste Combustion (uncontrolled), used in the emissions calculations include the condensable particulate matter (CPM) emission factor of 0.017 lb/MMBtu, as measured by EPA Method 202 (or equivalent).
  - (3) Pendleton has indicated that it will combust only clean, dry, untreated, wood chips in the biomass-fired boiler (B-1). Accordingly, the biomass handling and storage operations emission calculations have been revised reflect this change in material usage.  
*This is a Title I change.*

**County Attainment Status**

The source is located in Madison County. The following attainment status designations are applicable to Madison 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 July 20, 2012, for the 2008 8-hour ozone standard. <sup>1</sup>
PM <sub>2.5</sub>	Unclassifiable or attainment effective April 5, 2005, for the annual PM <sub>2.5</sub> standard.
	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM <sub>2.5</sub> standard.
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

<sup>1</sup>Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.  
 (Air Pollution Control Division; 326 IAC 1-4-49; filed Dec 26, 2007, 1:43 p.m.: 20080123-IR-326070308FRA; filed May 14, 2008, 2:36 p.m.: 20080611-IR-326070840FRA; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA; filed Oct 25, 2013, 2:41 p.m.: 20131120-IR-326130164FRA).

- (a) Ozone Standards  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Madison County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) PM2.5  
 Madison County has been classified as attainment for PM2.5. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions. These rules became effective on July 15, 2008. On May 4, 2011, the air pollution control board issued an emergency rule establishing the direct PM2.5 significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Other Criteria Pollutants  
 Madison County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

**Fugitive Emissions**

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

**Unrestricted Potential Emissions**

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	83.60
PM10 <sup>(1)</sup>	72.24
PM2.5	65.85
SO2	238.93
NOx	253.09
VOC	13.99
CO	195.52
Total HAPs <sup>(2)</sup>	10.50
Maximum (Worst Case) HAP	2.43 (hexane)

**NOTES**

- (1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
- (2) Appendix A.1 of this TSD reflects the unrestricted, uncontrolled, potential emissions of this source.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of SO<sub>2</sub>, NO<sub>x</sub>, and CO is equal to or greater than 100 tons per year, each. However, the Permittee has agreed to limit the source's SO<sub>2</sub>, NO<sub>x</sub>, and CO emissions to less than Title V levels, therefore the Permittee will be issued a FESOP Renewal.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.

- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.
- (d) On June 23, 2014, in the case of Utility Air Regulatory Group v. EPA, cause no. 12-1146, (available at [http://www.supremecourt.gov/opinions/13pdf/12-1146\\_4g18.pdf](http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf)) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions." The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

<b>Potential to Emit of the Entire Source After Issuance</b>
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The source has opted to remain a FESOP source. The table below summarizes the potential to emit of the entire source (*reflecting adjustment of existing limits*), with updated emissions shown as **bold** values and previous emissions shown as ~~strike through~~ values.

Process/Emission Unit	Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)									
	PM	PM <sub>10</sub> *	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP	
<b>Pendleton Correctional Facility (IR)</b>										
Boiler 4 (B-1) <sup>(1)</sup>	51.13 29.75	48.19 40.47	41.80 NA		54.20	≤ 49.36	2.17 2.05	≤ 81.50	2.19 4.25	1.13 2.29 (HCL)
Boilers 2, 3, 4, & 5 (B-2, B-3, B-4, & B-5) <sup>(1)</sup>	7.89<1.73 for Boilers B-2 & B-3, and <0.5 for Boilers B-4 & B-5	16.43<6.9 2 for Boilers B-2 & B-3, and <0.83 for Boilers B-4 & B-5	16.43 NA	≤ 92.26	<0.55 for Boiler s-B-2 & B-3, and <17.8 for Boiler s-B-4 & B-5	<91.0 for Boilers B-1, B-2 & B-3, and < 5.0 for Boilers B-4 & B-5	6.63< 5.01 for Boiler s-B-2 & B-3, and <0.05 for Boiler s-B-4 & B-5	<90.0 for Boilers B-1, B- 2 & B- 3, and <1.25 for Boilers B-4 & B-5	0.43<1.7 2 for Boilers B-2 & B- 3, and <0.06 for Boilers B-4 & B- 5	0.36 <1.64 (hexane) for Boilers B-2 & B-3, and <0.06 (formaldehyde ) for Boilers B- 4 & B-5
Wood chips & Ash Biomass Handling	22.11 163.70	8.05 <47.35	8.05 NA	0	0	0	0	0	0	NA
Ash Handling	2.4	2.4	NA	0	0	0	0	0	0	NA
Insignificant Activities	2	2	NA	0.5	0.5	5.00	0.5	negl.	negl.	
Diesel-fired Emergency Generator (G-1)	0.51	0.29	0.29	2.95	17.53	0.52	4.02	8.05E <sup>-03</sup>	3.97E <sup>-03</sup> (benzene)	
Autobody Refinishing	0.37	0.37	0.37	0	0	3	0	2.81	0.90 (xylenes)	
Parts Washers (degreasers)	0	0	0	0	0	0.24	0	0.068	0.034 (toluene)	
Gasoline Dispensing Facility (IR-GDF)	0	0	0	0	0	0.07	0	0.02	6.70E <sup>-03</sup> (xylenes)	
Welding	0.33	0.33	0.33	0	0	0	0	0.07	0.07 (manganese)	
Insignificant NG Combustion Units	0.01	0.03	0.03	2.49E <sup>-03</sup>	0.41	0.02	0.35	7.83E <sup>-03</sup>	7.47E <sup>-03</sup> (hexane)	
<b>Correctional Industrial Facility (CIF)</b>										
Diesel-fired Emergency Generator (G-2 & G-3)	0.31	0.18	0.18	1.80	10.68	0.31	2.45	4.90E <sup>-03</sup>	2.42E <sup>-03</sup> (benzene)	
Gasoline Dispensing Facility (CIF-GDF)	0	0	0	0	0	0.07	0	0.02	6.70E <sup>-03</sup> (xylenes)	
Welding	0.40	0.40	0.40	0	0	0	0	0.12	0.12 (manganese)	
Grinding	0.03	0.01	0.01	0	0	0	0	2.02E <sup>-03</sup>	2.02E <sup>-03</sup> (lead)	
CNC Machining (coolant)	0	0	0	0	0	0.08	0	0	NA	
Insignificant NG Combustion Units	0.02	0.09	0.09	0.01	1.24	0.07	1.04	0.023	0.022 (hexane)	
<b>Pendleton Juvenile Correctional Facility (PJCF)</b>										
Diesel-fired Emergency Generator (G-4)	0.33	0.19	0.19	1.92	11.4	0.33	2.61	5.23E <sup>-03</sup>	2.58E <sup>-03</sup> (benzene)	
Insignificant NG Combustion Units	0.16	0.64	0.64	0.05	8.38	0.46	7.04	0.16	0.15 (hexane)	
Total PTE of Entire Source	83.60 <250	75.20 <100	68.81 <100	99.00 <100	99.00 <100	13.99 11.86	99.00 <100	10.50 <25	2.43 (HCL) <10 (any)	
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10	
PSD Major Source Thresholds	250	250	250	250	250	250	250	NA	NA	

**Notes:**

Abbreviations: negl. = negligible NA = not applicable HCL = Hydrogen Chloride

The existing emissions represented in the following table are from the TSD for Significant Permit Revision No. 095-26417-00006, the "Potential To Emit of the Entire Source to accommodate the Proposed Revision (tons/year)" table, page 5 of 26. IDEM was not required to quantify PM<sub>2.5</sub> emissions at the time of issuance.

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

(1) Limited PTE based upon annual SO<sub>2</sub>, NO<sub>x</sub>, and CO emissions limits to comply with 326 IAC 2-8 (FESOP), and render 326 IAC 2-2 (PSD) not applicable. All remaining emissions listed in the below-table are unrestricted PTE.

Note: Although, the annual SO<sub>2</sub>, NO<sub>x</sub>, and CO emissions limits will have an effect on the emissions of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, VOC, and HAPs, there is no way to characterize the reduction to these pollutants. Therefore, the PM, PM<sub>10</sub>, PM<sub>2.5</sub>, VOC, and HAPs emissions included in the table below reflect the unlimited/ uncontrolled emissions from the boilers.

The source has opted to remain a FESOP source. The table below summarizes the potential to emit of the entire source after issuance of this (*revision or amendment*), reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (*Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted*).

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of the Renewal (tons/year)								Worst Single HAP
	PM	PM <sub>10</sub> *	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	
<b>Pendleton Correctional Facility (IR)</b>									
Boiler (B-1) <sup>(1)</sup>	51.13	48.19	41.80			2.17		4.71	2.47 (HCL)
Boilers (B-2, B-3, B-4, & B-5) <sup>(1)</sup>	7.89	13.47	13.47	92.26	49.36	6.63	81.50	2.47	2.17 (hexane)
Wood chips & Ash Handling	22.11	8.05	8.05	0	0	0	0	0	NA
Diesel-fired Emergency Generator (G-1)	0.51	0.29	0.29	2.95	17.53	0.52	4.02	8.05E <sup>-03</sup>	3.97E <sup>-03</sup> (benzene)
Autobody Refinishing	0.37	0.37	0.37	0	0	3.00	0	2.81	0.90 (xylenes)
Parts Washers (degreasers)	0	0	0	0	0	0.24	0	0.068	0.034 (toluene)
Gasoline Dispensing Facility (IR-GDF)	0	0	0	0	0	0.07	0	0.02	6.70E <sup>-03</sup> (xylenes)
Welding	0.33	0.33	0.33	0	0	0	0	0.07	0.07 (manganese)
Insignificant NG Combustion Units	0.01	0.03	0.03	2.49E <sup>-03</sup>	0.41	0.02	0.35	7.83E <sup>-03</sup>	7.47E <sup>-03</sup> (hexane)
<b>Correctional Industrial Facility (CIF)</b>									
Diesel-fired Emergency Generator (G-2 & G-3)	0.31	0.18	0.18	1.80	10.68	0.31	2.45	4.90E <sup>-03</sup>	2.42E <sup>-03</sup> (benzene)
Gasoline Dispensing Facility (CIF-GDF)	0	0	0	0	0	0.07	0	0.02	6.70E
Welding	0.40	0.40	0.40	0	0	0	0	0.12	0.12 (manganese)
Grinding	0.03	0.01	0.01	0	0	0	0	2.02E <sup>-03</sup>	2.02E <sup>-03</sup> (lead)
CNC Machining (coolant)	0	0	0	0	0	0.08	0	0	NA
Insignificant NG Combustion Units	0.02	0.09	0.09	0.01	1.24	0.07	1.04	0.023	0.022 (hexane)
<b>Pendleton Juvenile Correctional Facility (PJCF)</b>									
Diesel-fired Emergency Generator (G-4)	0.33	0.19	0.19	1.92	11.40	0.33	2.61	5.23E <sup>-03</sup>	2.58E <sup>-03</sup> (benzene)
Insignificant NG Combustion Units	0.16	0.64	0.64	0.05	8.38	0.46	7.04	0.16	0.15 (hexane)
<b>Total PTE of Entire Source</b>	<b>83.60</b>	<b>75.20</b>	<b>68.81</b>	<b>99.00</b>	<b>99.00</b>	<b>13.99</b>	<b>99.00</b>	<b>10.50</b>	<b>2.43 (HCL)</b>
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	NA	NA
Abbreviations: negl. = negligible NA = not applicable HCL = Hydrogen Chloride *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". (1) Limited PTE based upon annual fuel usage limits to comply with 326 IAC 2-8 (FESOP), and render 326 IAC 2-2 (PSD) not applicable. All remaining emissions listed in the above-table are unrestricted PTE.									

(a) FESOP and PSD Minor Status

This existing source is not a Title V major stationary source, because the potential to emit criteria pollutants from the entire source will be limited to less than the Title V major source threshold levels. In addition, this existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the potential to emit HAPs is less than ten (10) tons per year for a single HAP

and twenty-five (25) tons per year of total HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP).

(1) In order to comply with the requirements of 326 IAC 2-8-4 (FESOP) and in order to render 326 IAC 2-2 (PSD) not applicable, the source shall comply with the following:

(A) Fuel Specifications

(i) The Permittee shall only combust the following fuels in the associated emission unit(s):

Fuel	Emission Unit
Chipped clean wood/untreated wood pallets	Boiler B-1
Natural Gas	Boilers B-2 through B-5
No. 2 Fuel Oil	Boilers B-4 and B-5

***This is a revised requirement for this source. This is a Title I change;***

(ii) The wood chips combusted in the wood-fired boiler (B-1) shall only be generated from "*clean wood*" and/or "*untreated wood pallets*".

For the purposes of this permit, the following definitions shall apply:

(AA) *Clean wood* consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. *Clean wood* does **not** include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

(BB) *Untreated wood pallets* are pallets that meet the definition of clean cellulosic biomass, as defined under 40 CFR 241.2, and that have been processed to remove non-wood material that would inhibit combustion, such as screws or plastic fasteners. Clean cellulosic biomass, as defined under 40 CFR 241.2, is biomass that does not contain contaminants (all pollutants listed in Clean Air Act sections 112(b) or 129(a)(4) and the elements chlorine, fluorine, nitrogen, and sulfur) at concentrations not normally associated with virgin biomass materials.

Compliance with this requirement shall render the requirements of 326 IAC 4-2 (Incinerators), and 326 IAC 12 (40 CFR 60, Subpart AAAA - New Source Performance Standards for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 and 40 CFR 60, Subpart EEEE - New Source Performance Standards for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004 or for Which Modification or Reconstruction is commenced on or After June 16, 2006) not applicable.

***This is a new requirement for this source. This is a Title I change;***

(iii) The Higher Heating Value (HHV) of dry wood is 17.48 MMBtu/ton for wood with less than 20% moisture content, unless different HHV and percent (5) moisture content values are determined during the latest stack test;

***This is a new requirement for this source. This is a Title I change;***

- (iv) The sulfur content of the No. 2 distillate fuel oil, used in Boilers B-4 and B-5, shall not exceed 0.50% by weight. *This is an existing requirement for this source.*

(B) Multiple Fuel Usage Limitations

When combusting more than one fuel per twelve (12) consecutive month period in Boilers B-1 through B-5, emissions from Boilers B-1 through B-5 shall be limited as follows:

- (i) SO<sub>2</sub> emissions from Boilers B-1 through B-5, combined, shall not exceed 92.26 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

***This is a new requirement for this source. This is a Title I change***

The Permittee shall calculate the boiler emissions using the following formulas:

$$S = \frac{[W(E_W)(HHV) + G(E_G) + O(E_O)]}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period;  
W = tons of wood chips used in the last 12 months;  
G = million cubic feet of natural gas used in the last 12 months;  
O = gallons of No. 2 fuel oil used in the last 12 months;  
E<sub>W</sub> = 0.025 pounds per million Btu of dry wood;  
E<sub>G</sub> = 0.60 pounds per million cubic feet of natural gas; and  
E<sub>O</sub> = 0.071 pounds per gallon of No. 2 fuel oil.  
HHV = 17.48 MMBtu/ton of wood, unless different value is determined during the latest stack test.

- (ii) NO<sub>x</sub> emissions from Boilers B-1 through B-5, combined, shall not exceed 49.36 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

***This is a change from the existing limit of 91.0 tons per twelve (12) consecutive month period. This is a Title I change;***

The Permittee shall calculate the boiler emissions using the following formulas:

$$N = \frac{[W(E_W)(HHV) + G(E_G) + O(E_O)]}{2,000 \text{ lbs/ton}}$$

where:

N = tons of nitrogen oxide emissions for a 12-month consecutive period;  
W = tons of wood chips used in the last 12 months;  
G = million cubic feet of natural gas used in the last 12 months;  
O = gallons of No. 2 fuel oil used in the last 12 months;  
E<sub>W</sub> = 0.49 pounds per million Btu of dry wood;  
E<sub>G</sub> = 100 pounds per million cubic feet of natural gas;  
E<sub>O</sub> = 0.020 pounds per gallon of No. 2 fuel oil;  
HHV = 17.48 MMBtu/ton of wood, unless different value is determined during the latest stack test.



- (iii) CO emissions from Boilers B-1 through B-5, combined, shall not exceed 81.50 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

***This is a change from the existing limit of 90.0 tons per twelve (12) consecutive month period. This is a Title I change;***

The Permittee shall calculate the boiler emissions using the following formulas:

$$C = \frac{W(E_W)(HHV) + G(E_G) + O(E_O)}{2,000 \text{ lbs/ton}}$$

*where:*

C = tons of carbon monoxide emissions for a 12-month consecutive period;

W = tons of wood chips used in the last 12 months;

G = million cubic feet of natural gas used in the last 12 months;

O = gallons of No. 2 fuel oil used in the last 12 months;

E<sub>W</sub> = 0.60 pounds per million Btu of dry wood;

E<sub>G</sub> = 84 pounds per million cubic feet of natural gas; and

E<sub>O</sub> = 0.005 pounds per gallon of No. 2 fuel oil;

HHV = 17.48 MMBtu/ton of wood, unless different value is determined during the latest stack test.

Compliance with these limits, combined with the potential to emit SO<sub>2</sub>, NO<sub>x</sub>, CO, and greenhouse gasses from all other emission units at this source, shall limit the source-wide total potential to emit of SO<sub>2</sub>, NO<sub>x</sub>, and CO to less than 100 tons per 12 consecutive month period and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Note: Pendleton has requested that biomass-fired boiler (B-1) be approved to combust only clean, dry, untreated, wood chips. Accordingly, the biomass handling and storage operations emission calculations have been revised reflect this change in material usage. Consequently, the source-wide potential to emit PM<sub>10</sub> is now 72.29 tons/yr, which is less than the TV threshold of 100 tons/yr. Therefore, the PM<sub>10</sub> limit is removed from the permit.

*This is a Title I change.*

### Federal Rule Applicability

#### New Source Performance Standards (NSPS)

(a) 40 CFR 60, Subpart Dc - NSPS for Small Industrial-Commercial-Institutional Steam Generating Units

- (1) The existing wood-fired boiler B-1 is still subject to the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12-1), because although Boiler B-1 was initially constructed in 1961 as a coal-fired boiler, and then retrofitted to burn only natural gas in 1998 (*a net decrease in PTE*), it was later modified, as defined under 40 CFR 60.14, in 2007 to combust only biomass (*a net increase in PTE*) [after the rule applicability date of June 9, 1989], and finally, is receiving approval in 2014 to combust only wood chips. Additionally, the unit meets the definition of a steam generating unit, in that it combusts fuel to heat water or another heat transfer media, and has a maximum design heat input capacity greater than 10 MMBtu/hr but less than 100 MMBtu/hr.

The facility subject to this rule includes the following:

One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;

Boiler B-1 is therefore subject to the following applicable portions of Subpart Dc (included as Attachment A of the permit), as follows:

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

*Note: There are no testing requirements applicable to this source for this NSPS.*

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to Boiler B-1 except as otherwise specified in 40 CFR 60, Subpart Dc.

*Note: this is an existing requirement for this source, however, as part of this permit action the applicability has been updated to reflect the fuel currently approved for combustion in this boiler. This is a Title I change.*

- (2) The requirements of the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit for existing Boilers B-2, B-3, or B-4, because although each unit meets the definition of a steam generating unit, combusting fuel to heat water or another heat transfer media, and has a maximum design heat input capacity greater than 10 MMBtu/hr but less than 100 MMBtu/hr, construction of each unit commenced before June 9, 1989 and none of the boilers (B-2, B-3, or B-4) have been either modified, as defined under 40 CFR 60.14, or reconstructed, as defined under 40 CFR 60.15.
- (3) The existing natural gas and No. 2 fuel oil-fired boiler (B-5) is still subject to the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12-1), because it was initially constructed in 1995 [after the rule applicability date of June 9, 1989], has never been modified or reconstructed, meets the definition of a steam generating unit, in that it combusts fuel to heat water or another heat transfer media, and has a maximum design heat input capacity greater than 10 MMBtu/hr but less than 100 MMBtu/hr.

The facility subject to this rule include the following:

- One (1) dual fuel-fired boiler, identified as Boiler B-5, constructed in 1995, with a maximum heat input capacity of 61.89 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-5.

Boiler B-5 is therefore subject to the following applicable portions of Subpart Dc (included as Attachment A of the permit), as follows:

- |   |   |
|---|---|
| (1) 40 CFR 60.40c (a),(b),(c),(d);                  | (5) 40 CFR 60.46c(e); and   |
| (2) 40 CFR 60.41c;                                  | (6) 40 CFR 60.48c(a)(1),(a)(2),(a)(3),  |
| (3) 40 CFR 60.42c(d),(g),(h)(1),(h)(4),<br>(i),(j); | (a)(4),(b),(d),(e)(1),(e)(2),(e)(3),<br>(e)(4),(e)(5),(e)(6),(e)(11),(f)(1)(i),<br>(f)(1)(ii), (f)(1)(iii), (g)(1)(2)(i),(j); |
| (4) 40 CFR 60.44c (a),(b),(g),(h),(i);              |   |

*Note: See 40 CFR 60.40c for compliance determination/demonstration requirements.*

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to Boiler B-5 except as otherwise specified in 40 CFR 60, Subpart Dc.

*Note: this is an existing requirement for this source, however, as part of this permit action the applicability has been updated to reflect the fuels currently approved for combustion in this boiler. This is a Title I change.*

- (4) The requirements of the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit for natural gas-fired hot water boilers (B-6 through B-19) or natural gas-fired hot water heaters (B-29 through B-37), each, because although these units combust fuel to heat water, the maximum design heat input capacity of each unit is less than the rule applicability threshold of ten (10) MMBtu/hr.
  - (5) The requirements of the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit for the diesel fuel-fired emergency generators (G-1 through G-4), natural gas-fired radiant heaters (B-20 through B-23), natural gas-fired furnace (B-24), natural gas-fired force air space heaters (B-25 and B-26), natural gas-fired office space heater (B-27), natural gas-fired shop space heater (B-28), natural gas-fired laundry dryers (B-38 through B-42), natural gas-fired baking ovens (B-44 through B-51), natural gas-fired cooking griddles (B-52 through B-55), natural gas-fired large cooking oven (B-56), natural gas-fired laundry dryer (B-43), and natural gas-fired air handling unit (B-57), each, because none of these units combust fuel to produce steam or heat water or any transfer medium, and therefore do not meet the definition of a steam generating unit, as defined in §60.41c (Definitions).
- (c) 40 CFR 60, Subpart E - NSPS for Incinerators  
The requirements of the New Source Performance Standards (NSPS) for Incinerators, 40 CFR 60, Subpart E (326 IAC 12), are not included in the permit for wood-fired boiler B-1, as follows:
- (1) Boiler B-1 does not meet the definition of an incinerator, in that it is not used to burn solid waste (refuse) for the purpose of reducing the volume of the waste by removing combustible matter, but instead will only combust wood chips generated from "clean wood" and/or "untreated wood pallets" (see the "Potential to Emit After Issuance - FESOP and PSD Minor Status" section above for more detail) to heat water and to create steam for institutional uses; and
  - (2) Boiler B-1 has a maximum charging capacity of less than 45 metric tons (50 tons) per day;  
  
$$\text{Maximum charging capacity} = (\text{Maximum Heat Input Rate (MMBtu/hr)} / \text{Higher Heating Value of wood fuel (MMBtu/ton)}) * \text{maximum number of hours/day}$$
$$= \frac{29.18 \text{ MMBtu/hr}}{17.48 \text{ MMBtu/ton}} * 24 \text{ hrs/day} = 40.07 \text{ tons/day.}$$
- (d) 40 CFR 60, Subpart Ea - NSPS for Large Municipal Waste Combustors for Which Construction is Commenced after December 20, 1989 and on or before September 20, 1994  
The requirements of the New Source Performance Standards (NSPS) for Large Municipal Waste Combustors for Which Construction is Commenced after December 20, 1989 and on or before September 20, 1994, 40 CFR 60, Subpart Ea (326 IAC 12), are not included in the permit for wood-fired boiler B-1, as follows:
- (1) Boiler B-1 was initially constructed in 1961, before the initial applicability date, and later modified in 1998 after the applicability date range;

- (2) Boiler B-1 has a maximum charging capacity of less than 225 megagrams (250 tons) of municipal solid waste per day;

*Maximum charging capacity* = (Maximum Heat Input Rate (MMBtu/hr) / Higher Heating Value of wood fuel (MMBtu/ton)) \* maximum number of hours/day

$$= \frac{29.18 \text{ MMBtu/hr}}{17.48 \text{ MMBtu/ton}} * 24 \text{ hrs/day} = 40.07 \text{ tons/day.}$$

- (3) Boiler B-1 does not meet the definition of a municipal waste combustor, as defined under § 60.51a, since the unit will only combust wood chips generated from "clean wood" and/or "untreated wood pallets" (see the "Potential to Emit After Issuance - FESOP and PSD Minor Status" section above for more detail).

- (e) 40 CFR 60, Subpart Eb - NSPS for Large Municipal Waste Combustors for Which Construction is Commenced after September 20, 1994, or for Which Modification or Reconstruction is commenced after June 19, 1996

The requirements of the New Source Performance Standards (NSPS) for Large Municipal Waste Combustors for Which Construction is Commenced after September 20, 1994, or for Which Modification or Reconstruction is commenced after June 19, 1996, 40 CFR 60, Subpart Eb (326 IAC 12), are not included in the permit for wood-fired boiler B-1, as follows:

- (1) Boiler B-1 was modified to combust biomass in 2008, after the applicability date range;

- (2) Boiler B-1 has a maximum charging capacity of less than 225 megagrams (250 tons) of municipal solid waste per day:

*Maximum charging capacity* = (Maximum Heat Input Rate (MMBtu/hr) / Higher Heating Value of wood fuel (MMBtu/ton)) \* maximum number of hours/day

$$= \frac{29.18 \text{ MMBtu/hr}}{17.48 \text{ MMBtu/ton}} * 24 \text{ hrs/day} = 40.07 \text{ tons/day.}$$

- (3) Boiler B-1 does not meet the definition of a municipal waste combustor, as defined under § 60.51b, since the unit will only combust wood chips generated from "clean wood" and/or "untreated wood pallets" (see the "Potential to Emit After Issuance - FESOP and PSD Minor Status" section above for more detail).

- (f) 40 CFR 60, Subpart Ec - NSPS for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced after January 20, 1996

The requirements of the New Source Performance Standards (NSPS) for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced after January 20, 1996, 40 CFR 60, Subpart Ec (326 IAC 12), are not included in the permit for wood-fired boiler B-1, because the boiler does not combust hospital waste or medical/infectious waste, as defined under § 60.50c, but only wood chips generated from "clean wood" and/or "untreated wood pallets" (see the "Potential to Emit After Issuance - FESOP and PSD Minor Status" section above for more detail).

- (g) 40 CFR Part 60, Subpart K - NSPS for Volatile Organic Liquid Storage Vessels

The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart K (326 IAC 12), are not included in the permit for any of the below tanks, because each tank was constructed after the rule applicability date of May 19, 1978 and has a maximum storage capacity of less than 151,416 liters (40,000 gallons):

- (1) 100 gallon moveable gasoline transfer tank (IR-AST1), constructed in 1983;
- (2) 500 gallon moveable diesel fuel oil transfer tank on a trailer (IR-AST2), constructed in 1983;
- (3) 5,000 gallon aboveground gasoline storage tank (CIF-AST1), constructed in 2014;
- (4) 5,000 gallon aboveground diesel fuel oil storage tank (CIF-AST2), constructed in 2013;

- (5) 2,000 gallon aboveground diesel fuel oil storage tank (CIF-AST3), constructed in 2014;
  - (6) 1,000 gallon aboveground diesel fuel oil storage tank (CIF-AST4), constructed in 2014; and
  - (7) 3,400 gallon diesel fuel oil storage tank (PJCF-AST1), constructed in 2000.
- (h) 40 CFR 60, Subpart Ka - NSPS for Volatile Organic Liquid Storage Vessels  
The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart Ka (326 IAC 12), are not included in the permit for any of the below tanks, because the maximum storage capacity of each tank is less than 151,416 liters (40,000 gallons):
- (1) 100 gallon moveable gasoline transfer tank (IR-AST1), constructed in 1983;
  - (2) 500 gallon moveable diesel fuel oil transfer tank on a trailer (IR-AST2), constructed in 1983;
  - (3) 5,000 gallon aboveground gasoline storage tank (CIF-AST1), constructed in 2014;
  - (4) 5,000 gallon aboveground diesel fuel oil storage tank (CIF-AST2), constructed in 2013;
  - (5) 2,000 gallon aboveground diesel fuel oil storage tank (CIF-AST3), constructed in 2014;
  - (6) 1,000 gallon aboveground diesel fuel oil storage tank (CIF-AST4), constructed in 2014; and
  - (7) 3,400 gallon diesel fuel oil storage tank (PJCF-AST1), constructed in 2000.
- (i) 40 CFR 60, Subpart Kb - NSPS for Volatile Organic Liquid Storage Vessels  
The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart Kb (326 IAC 12), are not included in the permit for any of the below tanks, because has a maximum storage capacity of less than seventy-five cubic meters (75 m3) (19,813 gallons):
- (1) 100 gallon moveable gasoline transfer tank (IR-AST1), constructed in 1983;
  - (2) 500 gallon moveable diesel fuel oil transfer tank on a trailer (IR-AST2), constructed in 1983;
  - (3) 5,000 gallon aboveground gasoline storage tank (CIF-AST1), constructed in 2014;
  - (4) 5,000 gallon aboveground diesel fuel oil storage tank (CIF-AST2), constructed in 2013;
  - (5) 2,000 gallon aboveground diesel fuel oil storage tank (CIF-AST3), constructed in 2014;
  - (6) 1,000 gallon aboveground diesel fuel oil storage tank (CIF-AST4), constructed in 2014; and
  - (7) 3,400 gallon diesel fuel oil storage tank (PJCF-AST1), constructed in 2000.
- (j) 40 CFR 60, Subpart DD - Standards of Performance for Grain Elevators  
The requirements of the New Source Performance Standard for Grain Elevators, 40 CFR 60, Subpart DD (326 IAC 12), are not included in the permit for the wood chip handling and storage operation (IR-WCHS), because although this source will include a truck unloading station and a conveyor, the material being handled consists of clean, dry, wood chips (biomass), and not "grain" as defined under 40 CFR 60.301(a).
- (k) 40 CFR 60, Subpart MM - NSPS for Automobile and Light Duty Truck Surface Coating Operations  
The requirements of the New Source Performance Standard for Automobile and Light Duty Truck Surface Coating Operations, 40 CFR 60, Subpart MM (2M) (326 IAC 12), are not included in the permit, because although this source applies coatings to automobile or light-duty truck bodies, the source is not an automobile or light-duty truck assembly plant, since Pendleton does not manufacture and/or assemble new automobiles or light-duty trucks, but instead repairs and refinishes existing vehicles for resale to assist in the rehabilitation of the prisoners.
- (l) 40 CFR 60, Subpart XX - NSPS for Bulk Gasoline Terminals  
The requirements of the New Source Performance Standards for Bulk Gasoline Terminals, 40 CFR 60, Subpart XX (2X) (326 IAC 12), are not included in the permit, because the gasoline fuel transfer and dispensing operation does not meet the definition of a bulk gasoline terminal, as defined under 40 CFR 60.501. Each of the gasoline fuel transfer and dispensing operations, IR-

GDF and CIF-GDF, is only capable of handling less than or equal to 1,300 gallons of gasoline per day.

(l) 40 CFR 60, Subpart AAA - NSPS for New Residential Wood Heaters

The requirements of the New Source Performance Standards for New Residential Wood Heaters, 40 CFR 60, Subpart AAA (3A) (326 IAC 12), are not included in the permit for wood-fired boiler B-1, because wood-fired boilers are specifically exempted under § 60.530(h)(2).

(n) 40 CFR 60, Subpart AAAA - NSPS for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001

The requirements of the New Source Performance Standards for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 40 CFR 60, Subpart AAAA (4A) (326 IAC 12), are not included in the permit for wood-fired boiler B-1, as follows:

- (1) Although, Boiler B-1 was modified to combust biomass in 2007 and has a maximum charging capacity of at least 35 tons per day but no more than 250 tons per day, as follows:

*Maximum charging capacity* = (Maximum Heat Input Rate (MMBtu/hr) / Higher Heating Value of wood fuel (MMBtu/ton)) \* maximum number of hours/day

$$= \frac{29.18 \text{ MMBtu/hr}}{17.48 \text{ MMBtu/ton}} * 24 \text{ hrs/day} = 42.91 \text{ tons/day.}$$

- (2) The boiler does not meet the definition of a municipal waste combustion unit, as defined under §60.1465, since the unit will only combust wood chips generated from "clean wood" and/or "untreated wood pallets" (see the "Potential to Emit After Issuance - FESOP and PSD Minor Status" section above for more detail).

(o) 40 CFR 60, Subpart CCCC - NSPS for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001

The requirements of the New Source Performance Standard (NSPS) for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001, 40 CFR 60, Subpart CCCC (326 IAC 12), are not included in the permit for wood-fired boiler (B-1), as follows:

- (1) Boiler B-1 does not meet the definition of a new incineration unit, as defined under 40 CFR 60.2015. Boiler B-1 was initially constructed in 1961, before the rule applicability date of June 4, 2010, as a coal-fired boiler. The unit was later modified (*a net increase in PTE*), as defined under 40 CFR 60.14, in 2007, before the rule applicability date of August 7, 2013, to combust only biomass;
- (2) Boiler B-1 does not meet the definition of a commercial and industrial solid waste incineration (CISWI) unit, as defined under 40 CFR 60.2265, in that it is not a furnace used in the process of combusting solid waste (refuse), as defined under 40 CFR 241, for the purpose of reducing the volume of the waste by removing combustible matter, but instead the unit will only combust wood chips generated from "clean wood" and/or "untreated wood pallets" (see the "Potential to Emit After Issuance - FESOP and PSD Minor Status" Section above for more detail) specifically for the purposes of energy recovery (i.e., to heat water and to create steam for institutional uses);

(p) 40 CFR 60, Subpart DDDD - Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units

The requirements of the Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units, 40 CFR 60, Subpart DDDD (326 IAC 12), are not included in the permit for wood-fired boiler (B-1), as follows:

- (1) Boiler B-1 does not meet the definition of a new incineration unit, as defined under 40 CFR 60.2015. Boiler B-1 was initially constructed in 1961, before the rule applicability date of June 4, 2010, as a coal-fired boiler. The unit was later modified (*a net increase in PTE*), as defined under 40 CFR 60.14, in 2008, before the rule applicability date of August 7, 2013, to combust only biomass;
- (2) Boiler B-1 does not meet the definition of a commercial and industrial solid waste incineration (CISWI) unit, as defined under 40 CFR 60.2265, in that it is not a furnace used in the process of combusting solid waste (refuse), as defined under 40 CFR 241, for the purpose of reducing the volume of the waste by removing combustible matter, but instead the unit will only combust wood chips generated from "clean wood" and/or "untreated wood pallets" (*see the "Potential to Emit After Issuance - FESOP and PSD Minor Status" section above for more detail*) specifically for the purposes of energy recovery (i.e., to heat water and to create steam for institutional uses);

(q) 40 CFR 60, Subpart EEEE - NSPS for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004 or for Which Modification or Reconstruction is commenced on or After June 16, 2006

The requirements of the New Source Performance Standards for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004 or for Which Modification or Reconstruction is commenced on or After June 16, 2006, 40 CFR 60, Subpart EEEE (60.2280 through 60, 2891), are not included in this permit for wood-fired boiler B-1, as follows:

- (1) Boiler B-1 has a maximum charging capacity of greater than 35 tons per day;

*Maximum charging capacity* = (Maximum Heat Input Rate (MMBtu/hr) / Higher Heating Value of wood fuel (MMBtu/ton)) \* maximum number of hours/day

$$= \frac{29.18 \text{ MMBtu/hr}}{17.48 \text{ MMBtu/ton}} * 24 \text{ hrs/day} = 42.91 \text{ tons/day.}$$

- (2) Boiler B-1 does not meet the definition of a municipal waste combustion unit, as defined under § 60.1465, since the unit will only combust wood chips generated from "clean wood" and/or "untreated wood pallets" (*see the "Potential to Emit After Issuance - FESOP and PSD Minor Status" section above for more detail*) and not municipal solid waste or municipal-type solid waste, specifically for the purposes of energy recovery (i.e., to heat water and to create steam for institutional uses).

(r) 40 CFR 60, Subpart IIII - NSPS for Stationary Compression Ignition Internal Combustion Engines

The requirements of the New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart IIII (326 IAC 12), are not included in the permit for emergency generators G-1, G-2, G-3, or G-4 because construction of each unit commenced before July 11, 2005, and each generator was manufactured prior to April 1, 2006. *Note: The date that construction commences, for the purpose of this rule, is the date the engine is ordered by the owner or operator.*

(s) 40 CFR 60, Subpart JJJJ - NSPS for Stationary Spark Ignition Internal Combustion Engines

The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ (4J) (326 IAC 12), are not included in the permit for emergency generators G-1, G-2, G-3 or G-4, because each generator is a compression ignition internal combustion engine and not a spark ignition internal combustion engine.

- (t) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

*National Emission Standards for Hazardous Air Pollutants (NESHAP)*

- (a) 40 CFR 63, Subpart T - NESHAPs for Halogenated Solvent Cleaning  
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning 40 CFR 63, Subpart T (326 IAC 20-6), are not included in the permit, because although the source uses a cold cleaning machine, as defined under 40 CFR 63.461, it does not use any solvent containing methylene chloride, perchlorethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination of these halogenated HAP solvents in a total concentration greater than five percent (5%) by weight as a cleaning or drying agent.
- (b) 40 CFR 63, Subpart EEE - NESHAPs for Hazardous Waste Combustors  
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) from Hazardous Waste Combustors, 40 CFR 63, Subpart EEE (326 IAC 20-28), are not included in the permit for wood-fired boiler B-1, since Boiler B-1 does not meet the definition of a hazardous waste combustor, as defined under § 63.1201, since the unit will only combust wood chips generated from "clean wood" and/or "untreated wood pallets" (see the "Potential to Emit After Issuance - FESOP and PSD Minor Status" section above for more detail), and not solid waste, as defined under 40 CFR 261.2, and not hazardous waste, as defined under 40 CFR 63.1201 (40 CFR 261.3).
- (c) 40 CFR 63 Subpart MMMM - NESHAPs for Surface Coating of Miscellaneous Metal Parts and Products  
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 (4M) (326 IAC 20-80), are not included in the permit, because although this source spray applies coatings containing hazardous air pollutants (HAP), as defined in 40 CFR 63.2, to miscellaneous metal parts and products, as defined in 63.3881 (a), this source is not a major source of HAPs. The potential of emit of any single HAP is less than ten (10) tons per year and any combination of HAPs is less than twenty-five (25) tons per year.
- (d) 40 CFR 63, Subpart ZZZZ - NESHAP for Stationary Reciprocating Internal Combustion Engines  
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ (326 IAC 20-82), are not included in the permit for each of the diesel fuel-fired emergency generators (G-1, G-2, G-3 and G-4), since they each meet the definition of an institutional emergency stationary RICE as defined in 40 CFR 63.6675, operate according to the provisions specified in 40 CFR 63.6640(f), and do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in § 63.6640(f)(4)(ii). Pursuant to 40 CFR 63.6585(f), the requirements of 40 CFR 63, Subpart ZZZZ are not applicable to any of the diesel fuel-fired emergency generators (G-1, G-2, G-3 and G-4).

This source operates under SIC Code 9223 (Correctional Institutions) and North American Industry Classification System (NAICS) Code 992140 (Correctional Institutions). Pursuant to an August 9, 2010, EPA Memorandum entitled "Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE" (currently located on the internet at: [http://www.epa.gov/airtoxics/ZZrice/guidance\\_emergency\\_engine\\_def.pdf](http://www.epa.gov/airtoxics/ZZrice/guidance_emergency_engine_def.pdf)), the operations at this source would fall under the category of "institutional", since this source operates under NAICS Code 992140.

- (e) 40 CFR 63, Subpart DDDDD - NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters  
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart



DDDDD (5D) (326 IAC 20-95), are not included in the permit for any of the boilers, since although this source operates under SIC Code 9223 (Correctional Institutions) and North American Industry Classification System (NAICS) Code 992140 (Correctional Institutions), it is not a major source of HAPs, and is not located at, nor is a part of, a major source of HAP emissions.

(f) 40 CFR 63, Subpart CCCCCC - NESHAP for the Source Category Identified as Gasoline Dispensing Facilities (GDF)

This source is subject to the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, 40 CFR 63, Subpart CCCCCC (6C), because the source has two (2) gasoline fuel transfer and dispensing operations, each capable of handling less than or equal to 1,300 gallons per day, with a total maximum storage capacity equal to or less than 10,500 gallons.

The gasoline fuel transfer and dispensing operations subject to this rule include:

- (a) A gasoline fuel transfer and dispensing operation, identified as IR-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 100 gallon moveable gasoline transfer tank, identified as IR-AST1, constructed in 1983, uncontrolled, and venting to the atmosphere; and
- (b) A gasoline fuel transfer and dispensing operation, identified as CIF-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 5,000 gallon aboveground gasoline storage tank, identified as CIF-AST1, constructed in 2014, uncontrolled and venting to the atmosphere;

Therefore, the Pendleton Correctional Facility (IR-GDF) and Correctional Industrial Facility (CIF-GDF) gasoline fuel transfer and dispensing operations are each subject to the following portions of Subpart CCCCCC (6C) (included as Attachment D of the permit), with an initial compliance date of January 10, 2011:

- |  |                           |              |
|--|---------------------------|--------------|
| (1) 40 CFR 63.11110                    | (7) 40 CFR 63.11124;      | (13) Table 3 |
| (2) 40 CFR 63.11111(a), (b), (e), (f); | (8) 40 CFR 63.11125(d);   |              |
| (3) 40 CFR 63.11112(a), (d);           | (9) 40 CFR 63.11126(b);   |              |
| (4) 40 CFR 63.11113(b), (c);           | (10) 40 CFR 63.11130;     |              |
| (5) 40 CFR 63.11115;                   | (11) 40 CFR 63.11131;     |              |
| (6) 40 CFR 63.11116;                   | (12) 40 CFR 63.11132; and |              |

*Note: There are no testing requirements applicable to this source for this NESHAP.*

The requirements of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63, Subpart CCCCCC.

***This is a new requirement to the source. This is a Title I change.***

(g) 40 CFR 63, Subpart HHHHHH - NESHAP Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

The autobody refinishing operation, identified as IR-ARO, constructed in 1961, is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63, Subpart HHHHHH (6H) (326 IAC 20), because Pendleton meets the definition of an area source, as defined in 40 CFR § 63.2, and uses spray application methods to apply coatings to more than two motor vehicles or pieces of mobile equipment per year. Moreover, since the autobody refinishing operation (IR-ARO), was constructed before September 17, 2007, it qualifies as an existing affected source.

The facilities subject to this rule include the following:

- (A) Mixing rooms and equipment;

- (B) Spray booths, ventilated prep stations, curing ovens, and associated equipment;
- (C) Spray guns and associated equipment;
- (D) Spray gun cleaning equipment;
- (E) Equipment used for storage, handling, recovery, or recycling of cleaning solvent or waste paint; and

The autobody refinishing operation (IR-ARO) is therefore subject to the following applicable portions of Subpart HHHHHH (6H) (included as Attachment C of the permit), with an initial compliance date of January 10, 2011:

- |                                 |   |
|---------------------------------|---|
| (A) 40 CFR 63.11169(b);         | (H) 40 CFR 63.11176(a);                     |
| (B) 40 CFR 63.11170(a)(2),(b);  | (I) 40 CFR 63.11177(a),(b),(c),(d),(g),(h); |
| (C) 40 CFR 63.11171(a),(b),(e); | (J) 40 CFR 63.11178;                        |
| (D) 40 CFR 63.11172(b);         | (K) 40 CFR 63.11179; and                    |
| (E) 40 CFR 63.11173(e),(g);     | (L) 40 CFR 63.11180;                        |
| (F) 40 CFR 63.11174;            | (M) Table 1.                                |
| (G) 40 CFR 63.11175;            |   |

*Note: There are no testing requirements applicable to this source for this NESHAP.*

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the Autobody Refinishing Operation, except as otherwise specified in 40 CFR 63, Subpart HHHHHH.

Note: Pendleton does not perform paint stripping using methylene chloride (MeCl) to remove dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and/or other substrates, and the coatings used in the autobody refinishing operation (IR-ARO) do not contain any target HAPs (i.e., compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd)).

***This is a new requirement to the source. This is a Title I change.***

(h) 40 CFR 63, Subpart JJJJJJ - NESHAPs for Industrial, Commercial, and Institutional Boilers Area Sources

- (1) Boilers B-1, B-4, and B-5 are each subject to the National Emission Standards for Hazardous Air Pollutants for the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ (6J), because this existing source is an area source of hazardous air pollutants (HAP), as defined in §63.2, and since it combusts clean, dry, untreated wood chips in Boiler B-1, and No. 2 fuel oil in Boilers B-4 and B-5.

The units subject to this rule include the following:

- (A) One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;
- (B) One (1) dual fuel-fired boiler, identified as Boiler B-4, constructed in 1983, with a maximum heat input capacity of 41.00 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-4.

- (C) One (1) dual fuel-fired boiler, identified as Boiler B-5, constructed in 1995, with a maximum heat input capacity of 61.89 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-5.

Boilers B-1, B-4, and B-5 are each subject to the following applicable portions of Subpart JJJJJJ (6J) (included as Attachment B of the permit), with compliance dates of January 20, 2014 (*initial notification*) and March 21, 2014 (*energy assessment and tune-up*):

- |  |  |
|--|--|
| (A) 40 CFR 63.11193;                   | (J) 40 CFR 63.11225(a)(1),(a)(2),(a)(4), |
| (B) 40 CFR 63.11194(a)(1),(b),(e),(f); | (b)(1),(b)(2),(b)(3),                    |
| (C) 40 CFR 63.11196(a)(1),(a)(3);      | (c)(1),(c)(2),(c)(4),                    |
| (D) 40 CFR 63.11200;                   | (c)(5),(d),(g);                          |
| (E) 40 CFR 63.11201(b),(d);            | (K) 40 CFR 63.11235;                     |
| (F) 40 CFR 63.11205(a);                | (L) 40 CFR 63.11236;                     |
| (G) 40 CFR 63.11210(c),(h);            | (M) 40 CFR 63.11237;                     |
| (H) 40 CFR 63.11214(b),(c);            | (N) Table 2; and                         |
| (I) 40 CFR 63.11223(a),(b);            | (O) Table 8                              |

*Note: There are no testing requirements applicable to this source for this NESHAP.*

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the one and forty-one (1.41) MMBtu/hr hot oil heater, identified as S-2, except as otherwise specified in 40 CFR 63, Subpart JJJJJJ.

***This is a new requirement to the source. This is a Title I change.***

- (2) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ (6J), are not included in the permit for the existing natural gas-fired boiler, identified as Boiler B-3, natural gas-fired hot water boilers, identified as B-6 through B-19, 3.5 MMBtu/hr direct-fired natural gas water heater, identified as B-29, or the natural gas-fired hot water heaters, identified as B-30 through B-37, each, because gas-fired boilers and hot water heaters, as defined in 40 CFR 63.11237, are specifically exempted from this rule as indicated in 40 CFR 63.11195(e).
- (i) 40 CFR 63, Subpart XXXXXX - NESHAPs for Nine Metal Fabrication and Finishing Source Categories  
The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Nine Metal Fabrication and Finishing Source Categories, 40 CFR 63, Subpart XXXXXX (6X) (326 IAC 20), are not included in the permit, because this existing source is not primarily engaged in any of the operations listed under the nine metal fabrication and finishing source categories, defined under 40 CFR 63.11514 and 63.11522.
- (j) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, and 40 CFR Part 63) included in the permit.

***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 - Entire Source**

- (a) 326 IAC 1-6-3 (Preventive Maintenance Plan)  
Pursuant to 326 IAC 1-6-3(a), the source is subject to the requirements of 326 IAC 1-6-3.
- (b) 326 IAC 1-7 (Stack Height)  
Stack Height applicability is discussed under the "State Rule Applicability – Individual Facilities" Section below.
- (c) 326 IAC 2-1.1-5 (Nonattainment New Source Review)  
Madison County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, pursuant to 326 IAC 2-1.1-5, the Nonattainment New Source Review requirements do not apply, and are not included in the permit.
- (d) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))  
PSD applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.
- (e) 326 IAC 2-3 (Emission Offset)  
Madison County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) do not apply and are not included in the permit.
- (f) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
This source is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the entire source is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.
- (g) 326 IAC 2-6 (Emission Reporting)  
This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than 5 tons per year. Therefore, pursuant to 326 IAC 2-6-1(b), the source is only subject to additional information requests as provided in 326 IAC 2-6-5.
- (h) 326 IAC 2-8-4 (FESOP)  
FESOP applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.
- (i) 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 continue to 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.
- (j) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall continue to 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.
- (k) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
This source is not subject to the requirements of 326 IAC 6-5, because the potential to emit fugitive particulate emissions from the entire source is less than 25 tons per year.

- (l) 326 IAC 6.5 PM Limitations Except Lake County  
This source is not subject to the requirements of 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.
- (m) 326 IAC 6.8 PM Limitations for Lake County  
This source is not subject to the requirements of 326 IAC 6.8 because it is not located in Lake county.
- (n) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (o) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.

<b>State Rule Applicability – Individual Facilities</b>
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***Boilers (B-1 through B-5), and insignificant boilers and hot water heaters (B-6 through B-19, and B-29 through B-37)***

- (a) 326 IAC 1-7 (Stack Height)
  - (1) The unlimited and uncontrolled potential to emit (PTE) PM10, PM2.5, and SO2 from Boiler stacks S-B-1, S-B-2 and S-B-3 are less than twenty-five (25) tons per year, each. Therefore, the requirements of 326 IAC 1-7 do not apply to Boilers B-1, B-2, or B-3, and are not included in the permit.
  - (2) The unlimited and uncontrolled potential to emit (PTE) PM10, PM2.5, and SO2 from Boiler stacks S-B-4 and S-B-5, are greater than twenty-five (25) tons per year, each. Therefore, Boilers B-4 and B-5 continue to be subject to this rule and requirements are included in Section C of the permit.
  - (3) The unlimited and uncontrolled potential to emit (PTE) PM10, PM2.5, and SO2 from each of the insignificant boilers (B-6 through B-19) stacks and hot water heaters (B-29 through B-37) stacks, are less than twenty-five (25) tons per year, each. Therefore, the requirements of 326 IAC 1-7 do not apply to any of the insignificant boilers and/or hot water heaters, and are not included in the permit.

*See TSD Appendices A.1 and A.2, for the detailed calculations.*

- (b) 326 IAC 4-2-2 (Incinerators)
  - (1) The wood-fired boiler (B-1) is not an incinerator, as defined by 326 IAC 1-2-34, because it does not burn any waste substances, but will instead only combust wood chips generated from "*clean wood*" and/or "*untreated wood pallets*". Therefore, the requirements of 326 IAC 4-2-2 still do not apply to Boiler B-1 and are not included in the permit.

In order to render the requirements of 326 IAC 4-2-2 not applicable, the Permittee shall only combust "*clean wood*" and/or "*untreated wood pallets*" in Boiler B-1. *See the "Potential to Emit After Issuance - FESOP and PSD Minor Status" Section above for more detail.*

***This is a new requirement for this source. This is a Title I change;***

- (2) The natural gas-fired and distillate fuel oil-fired boilers (B-2 through B-5) are each not incinerators, as defined by 326 IAC 1-2-34, because they still do not burn waste substances. Therefore, the requirements of 326 IAC 4-2-2 still do not apply to Boilers B-2 through B-5 and are not included in the permit.

(3) The insignificant boilers (B-6 through B-19) and hot water heaters (B-29 through B-37), are each not incinerators, as defined by 326 IAC 1-2-34, because they still do not burn waste substances. Therefore, the requirements of 326 IAC 4-2-2 still do not apply to any of the insignificant boilers B-6 through B-19, and hot water heaters B-29 through B-37, and are not included in the permit.

(c) **326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)**

Pursuant to 326 IAC 6-2-1(d), indirect heating facilities which received approval to construct, modify, or reconstruct, after September 21, 1983 are subject to the requirements of 326 IAC 6-2-4. Each of the indirect heating units located at this source have been constructed, modified, or reconstructed after September 21, 1983.

Therefore, the particulate matter emissions (Pt) from each of the indirect heating facilities listed in the table below shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input; and

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Indirect Heating Units Which Began Operation After September 21, 1983							
Facility	Construction/ Reconstruction Date	Fuel Combusted	Maximum Operating Capacity (MMBtu/hr)	Q (MMBtu/hr)	Calculated Pt (lb/MMBtu)	Particulate Limitation, (Pt) (lb/MMBtu)	PM PTE based on AP-42* (lb/MMBtu)
B-1 <sup>(1)</sup>	1961	Coal	75.00	243.75	0.64	0.64	NA <sup>(4)</sup>
B-2 <sup>(1)</sup>	1961	Coal	75.00		0.64	0.64	NA <sup>(4)</sup>
B-3 <sup>(1)</sup>	1968	Coal	93.75		0.64	0.64	NA <sup>(4)</sup>
B-4 <sup>(2)</sup>	1983	NG/No. 2 FO	25.00	309.75	0.2453	0.2453	NA <sup>(2)</sup>
B-4 <sup>(3)</sup>	1983	NG/No. 2 FO	41.00		0.2453	0.2453	0.0019 / 0.014
B-29	1985	NG/No. 2 FO	0.075	309.83	0.2453	0.2453	0.0019
B-5	1995	NG	61.89	371.72	0.2340	0.2340	0.0019
B-1 <sup>(4)</sup>	1998	NG	79.13	360.13	0.2359	0.2359	0.0019
B-2 <sup>(4)</sup>	1998	NG	79.13		0.2359	0.2359	0.0019
B-3 <sup>(4)</sup>	1998	NG	98.90		0.2359	0.2359	0.0019
B-6	2000	NG	1.44	379.24	0.2328	0.2328	0.0019
B-7	2000	NG	1.44		0.2328	0.2328	0.0019
B-8	2000	NG	0.25		0.2328	0.2328	0.0019
B-9	2000	NG	0.25		0.2328	0.2328	0.0019
B-10	2000	NG	0.25		0.2328	0.2328	0.0019
B-11	2000	NG	0.25		0.2328	0.2328	0.0019
B-12	2000	NG	0.25		0.2328	0.2328	0.0019
B-13	2000	NG	0.25		0.2328	0.2328	0.0019
B-14	2000	NG	0.25		0.2328	0.2328	0.0019
B-15	2000	NG	0.25		0.2328	0.2328	0.0019

Indirect Heating Units Which Began Operation After September 21, 1983							
B-16	2000	NG	1.44	379.24	0.2328	0.2328	0.0019
B-17	2000	NG	1.44		0.2328	0.2328	0.0019
B-18	2000	NG	0.50		0.2328	0.2328	0.0019
B-19	2000	NG	0.50		0.2328	0.2328	0.0019
B-30	2000	NG	1.26		0.2328	0.2328	0.0019
B-31	2000	NG	0.99		0.2328	0.2328	0.0019
B-32	2000	NG	1.26		0.2328	0.2328	0.0019
B-33	2000	NG	1.26		0.2328	0.2328	0.0019
B-34	2000	NG	1.26		0.2328	0.2328	0.0019
B-35	2000	NG	1.26		0.2328	0.2328	0.0019
B-36	2000	NG	1.26		0.2328	0.2328	0.0019
B-37	2000	NG	1.80		0.2328	0.2328	0.0019
B-1 <sup>(5)</sup>	2007	Biomass (corn)	29.18		329.29	0.2415	0.2415
B-1 <sup>(6)</sup>	2008	Biomass (additional)	29.18	329.29	0.2415	0.2415	0.40 unctrl'd. 0.30 ctrl'd.
B-1 <sup>(7),(8)</sup>	2013	Wood Chips	29.18	329.29	0.2415	0.2415	0.40 unctrl'd. 0.30 ctrl'd.

Notes: (see TSD Appendix A.3 for more detail) NA = not applicable  
 unctrl'd = uncontrolled AP 42 emission factor ctrl'd = controlled AP 42 emission factor  
 Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input.  
 (1) Original Boilers B-1, B-2, and B-3, were initially constructed before June 8, 1972. 326 IAC 6-2-3 applied. Q and Pt taken from Operating Permits No: 48-03-90-0084, 48-03-90-0085, and 48-03-90-0086, issued 03/01/1990.  
 (2) Original Boiler B-4 was constructed after 09/21/1983 and removed in 1996.  
 (3) Original Boiler B-5, renumbered as B-4, received construction approval 11/21/1983.  
 (4) Boilers B-1 through B-3 retrofitted. Coal combustion functionality removed and replaced with natural gas. Q for these units' changes.  
 (5) Boiler B-1 retrofitted. Natural gas combustion functionality removed and replaced with biomass (corn, only). Q for this unit changes.  
 (6) Boiler B-1 retrofitted. Approval received- to combust additional types of Biomass, as follows: wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris. No change to Q occurred as a result of this modification.  
 (7) Boiler B-1 descriptive change. Approval requested to combust only clean, dry, untreated wood chips. No change to Q will occur as a result of this modification.  
 (8) AP 42 emission factors\* have been used to determine compliance with the particulate emission limitations in this table. Since the AP 42 emission factors are generated from average data, testing will be required to determine if Boiler B-1 will comply. See the "Compliance Determination and Monitoring Requirements" section, below, for more detail.

See TSD Appendices A.1, A.2, and A.3 for the detailed calculations.

(d) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
 Boilers B-1 through B-5, insignificant boilers B-6 through B-19, and insignificant hot water heaters B-29 through B-37, are each not subject to the requirements of 326 IAC 6-3 because each boiler and hot water heater is already otherwise subject to the requirements 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units).

(e) 326 IAC 7-1.1 Sulfur Dioxide Emission Limitations

(1) The unlimited and uncontrolled potential to emit (PTE) SO<sub>2</sub> from Boilers B-1, B-2, and B-3, is less than twenty-five (25) tons per year, or 10 pounds/hour, each. Therefore, the requirements of 326 IAC 7-1.1 do not apply to Boilers B-1, B-2, or B-3, and are not included in the permit.

- (2) The unlimited and uncontrolled potential to emit (PTE) SO<sub>2</sub> from Boilers B-4 and B-5 is equal to or greater than 25 tons per year or 10 pounds/hour, each, when combusting No. 2 Fuel Oil. Therefore, pursuant to this rule, sulfur dioxide emissions from Boilers B-4 and B-5, each, shall continue to be limited to five-tenths (0.5) pounds per million Btu heat input for distillate oil combustion.

Note: No. 2 fuel oil is considered distillate oil.

- (3) The unlimited and uncontrolled potential to emit (PTE) SO<sub>2</sub> from each of the insignificant boilers (B-6 through B-19) and hot water heaters (B-29 through B-37), are less than twenty-five (25) tons per year, or 10 pounds/hour, each. Therefore, the requirements of 326 IAC 7-1.1 do not apply to any of the insignificant boilers and/or hot water heaters, and are not included in the permit.

See TSD Appendices A.1 and A.2, for the detailed calculations.

- (f) 326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)  
Pursuant to 326 IAC 7-2-1(c), the source shall continue to submit reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate (pounds SO<sub>2</sub> per MMBtu), for the No. 2 fuel combusted in Boilers B-4 and B-5 to the OAQ upon request..
- (g) 326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)  
The unlimited VOC potential emissions from Boilers B-1 through B-5, insignificant boilers (B-6 through B-19), and insignificant hot water heaters (B-29 through B-37), are less than twenty-five (25) tons per year, each. Therefore, the requirements of 326 IAC 8-1-6 do not apply to any of Boilers B-1 through B-5, insignificant boilers (B-6 through B-19), or insignificant hot water heaters (B-29 through B-37), and are not included in the permit.

See TSD Appendices A.1 and A.2, for the detailed calculations.

- (h) 326 IAC 9-1 (Carbon Monoxide Emission Limits)  
The requirements of 326 IAC 9-1 are not included in the permit for any of the indirect-fired combustion units (i.e., boilers and/or hot water heaters) at this source because this existing correctional institution does not operate any catalyst regeneration petroleum cracking system or a petroleum fluid coker, grey iron cupola, blast furnace, basic oxygen steel furnace, or other ferrous metal smelting equipment. Additionally, the wood-fired boiler B-1 does not qualify as a refuse incinerator or refuse burning equipment, since the unit will only combust wood chips generated from "clean wood" and/or "untreated wood pallets" (see the "Potential to Emit After Issuance - FESOP and PSD Minor Status" and Federal Rule Applicability sections above for more detail).
- (i) 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)  
Boilers B-1 through B-5, insignificant boilers (B-6 through B-19), and insignificant hot water heaters (B-29 through B-37), are each not subject to the requirements of 326 IAC 10-3, because each boiler/ hot water heater is not a blast furnace gas-fired boiler, a Portland cement kiln, or any facility specifically listed under 326 IAC 10-3-1(a)(2).

### **Wood Chip Handling and Storage Operation (IR-WCHS), and Ash Disposal System (IR-AWD)**

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), shall allowable emissions from the Wood Chip Handling and Storage Operation (IR-WCHS), and Ash Disposal System (IR-AWD) shall be calculated as follows:

- (1) 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:

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



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

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

*Note: Pursuant to 326 IAC 6-3-2(e)(1), the allowable rate of emission (E) shall be based on the process weight rate (P) for a manufacturing process. The "Process weight; weight rate" is defined under 326 IAC 1-2-59 as the total weight of all materials introduced into any source operation.*

- (3) Pursuant to 326 IAC 6-3-2(e)(2), when the process weight rate (P) is less than 100 pounds per hour, the allowable rate of emission is five hundred fifty-one thousandths (0.551) pound per hour; and
- (4) Pursuant to 326 IAC 6-3-1(14), manufacturing processes with potential emissions less than five hundred fifty-one thousandths (0.551) pound per hour are exempt from this rule.

Therefore, the allowable particulate emission rate from each of the units in the Wood Chip Handling and Storage, and Ash Disposal Operations shall not exceed the corresponding pound per hour limitations listed in the table below:

Emission Unit	Process Weight Rate		326 IAC 6-3 Allowable Particulate Emission Rate (lbs/hour)	Potential Uncontrolled Particulate Emission Rates (lbs/hr)	Control device required for compliance with Limit?
	(lbs/hr)	(tons/hr)			
Truck Unloading Operation <sup>(1)</sup>	18,400.0	9.2	18.14	1.65	No
Material Storage <sup>(1)</sup>	220,000.0	110.0	52.24	2.75	No
Wood Chip Handling System <sup>(2)</sup>	3,000.0	1.5	exempt	0.092	NA
Ash handling System <sup>(1)</sup>	500.0	0.25	exempt	0.550	NA
exempt = exempt from 326 IAC 6-3, since potential particulate emissions are less than 0.551 pounds per hour. NA = not applicable (1) <i>This is an existing requirement for this source; and</i> (2) <i>This is a modified requirement for this source</i>					

See TSD Appendices A.1 and A.2, for the detailed calculations.

**Diesel-fired Emergency Generators (G-1, G-2, G-3, and G-4)**

- (a) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)  
 Each of the diesel-fired emergency generators (G-1, G-2, G-3, and G-4) is not a source of indirect heating, as defined in 326 IAC 1-2-19 "Combustion for indirect heating". Therefore, the requirements of 326 IAC 6-2 do not apply to any of the diesel-fired emergency generators (G-1, G-2, G-3, and G-4) and are not included in the permit.
- (b) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
 Each of the diesel-fired emergency generators (G-1, G-2, G-3, and G-4) is not a "manufacturing process" as defined under 326 IAC 6-3-1.5. Therefore, the requirements of 326 IAC 6-3 do not apply to any of the emergency generators, and are not included in the permit for these units.
- (c) 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)  
 The unlimited potential to emit SO<sub>2</sub> from each of the diesel-fired emergency generators (G-1, G-2, G-3, and G-4) is less than twenty-five (25) tons per year and ten (10) pounds/hour. Therefore, the requirements of 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations) do not apply to any of the diesel-fired emergency generators (G-1, G-2, G-3, and G-4) and are not included in the permit.

*See TSD Appendices A.1 and A.2, for the detailed calculations.*

- (d) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
The unlimited VOC potential emissions from each of the diesel-fired emergency generators (G-1, G-2, G-3, and G-4) are less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 (General Reduction Requirements for New Facilities) do not apply to any of the diesel-fired emergency generators (G-1, G-2, G-3, and G-4) and are not included in the permit.

*See TSD Appendices A.1 and A.2, for the detailed calculations.*

- (e) 326 IAC 9-1 (Carbon Monoxide Emission Limits)  
The diesel-fired emergency generators (G-1, G-2, G-3, and G-4) are each not one of the source types listed in 326 IAC 9-1-2. Therefore, the requirements of 326 IAC 9-1 (Carbon Monoxide Emission Limits) still do not apply to any of the diesel-fired emergency generators (G-1, G-2, G-3, and G-4) and are not included in the permit.
- (f) 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)  
The diesel-fired emergency generators (G-1, G-2, G-3, and G-4) are each not subject to the requirements of 326 IAC 10-3, because each generator is a reciprocating internal combustion engine and not a Portland cement kiln or a blast furnace gas fired boiler, and is not specifically listed under 326 IAC 10-3-1(a)(2).
- (g) 326 IAC 10-5 (Nitrogen Oxide Reduction Program for Internal Combustion Engines (ICE))  
Each of the diesel-fired emergency generators (G-1, G-2, G-3, and G-4) do not meet the definition of an affected engine, as defined in 326 IAC 10-5-2(1), because although each generator is an internal combustion engine, none of the generators is specifically listed in the NOx SIP Call engine inventory. Therefore, the requirements of 326 IAC 10-5 (Nitrogen Oxide Reduction Program for Internal Combustion Engines (ICE)) do not apply and are not included in the permit.

#### ***Autobody Refinishing Operation (IR-ARO)***

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-2(b)(15), surface coating manufacturing processes, not otherwise exempt in subdivisions (5) through (8), that use less than five (5) gallons per day, are specifically exempted from the rule.

The total maximum material usage of Pendleton Correctional Facility's (IR) Autobody Refinishing Operation (IR-ARO) is 3.08 gallons per day, therefore the requirements of 326 IAC 6-3 do not apply to the autobody refinishing operation, and are not included in the permit;

*See TSD Appendices A.1 and A.2, for the detailed calculations.*

- (b) 326 IAC 8-2-2 (Automobile and light duty truck coating operations)  
Although the existing autobody refinishing operation, identified as IR-ARO, applies coatings to automobile and light duty truck surface coating operations, which includes all passenger car or passenger car derivatives capable of seating twelve (12) or fewer passengers and any motor vehicle rated at three thousand eight hundred sixty-four (3,864) kilograms (eight thousand five hundred (8,500) pounds) gross weight or less that are designed primarily for the purpose of transportation or are derivatives of such vehicles, Pendleton does not manufacture and/or assemble new automobiles or light-duty trucks, but instead repairs and refinishes existing vehicles for resale to assist in the rehabilitation of the prisoners. Additionally, the autobody refinishing operation (IR-ARO) is otherwise regulated under 326 IAC 8-10-3(c). Therefore, the requirements of 326 8-2-2 do not apply to the autobody refinishing operation (IR-ARO) and are not included in the permit.

(c) 326 IAC 8-2-9 (Miscellaneous Metal Coating)  
 The autobody refinishing operation (IR-ARO) is otherwise regulated under 326 IAC 8-10-3(c). Therefore, the requirements of 326 8-2-9 do not apply to the autobody refinishing operation (IR-ARO) and are not included in the permit.

(d) 326 IAC 8-10 (Automobile Refinishing)  
 The source owns, leases, operates, or controls a facility, as defined in 326 IAC 1-2-27, that refinishes motor vehicles, motor vehicle parts, motor vehicle components, or mobile equipment, as defined in section 8-10-2(25) and 8-10-2(26) of the rule. Additionally, more than three (3) motor vehicles are refinished per calendar year.

The facility subject to this rule includes:

- One (1) autobody refinishing operation, identified as IR-ARO, constructed in 1961, located in the autobody shop, using airless spray application methods to apply a maximum of 0.04 gallons of coatings per hour, and 3.08 gallons per day, to metal automobile bodies, uncontrolled, and exhausting inside the building;

The autobody refinishing operation is therefore subject to the to the following applicable requirements of 326 IAC 8-10 (included as Attachment E of the permit), as follows:

- (1) Pursuant to 326 IAC 8-10-4(a), the owner or operator shall limit emissions of VOCs from refinishing operations subject to 326 IAC 8-10 by using coatings or surface preparation products with VOC limits based on the VOC content as applied.

The VOC content shall not exceed the following limits:

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

For surface preparation products:

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

- (2) Pursuant to 326 IAC 8-10-4(b), application of all specialty coatings except anti-glare/safety coatings shall not exceed five percent (5%) by volume of all coatings applied on a monthly basis; and

- (3) Pursuant to 326 IAC 8-10-3, the Permittee shall also comply with the following:

- (A) The work practice standards in 326 IAC 8-10-5;
- (B) The compliance procedures outlined in 326 IAC 8-10-6(c);

- (C) The test procedures in 326 IAC 8-10-7; and
- (D) The record keeping and reporting provisions in 326 IAC 8-10-9.

***This is a new requirement to the source. This is a Title I change.***

- (e) There are no other 326 IAC 8 Rules applicable to the existing autobody refinishing operation (IR-ARO).

***Parts Washers (degreasing)***

- (a) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
The degreasing operations, including five (5) cold cleaner degreaser units collectively identified as the Parts Washers, are by their very nature wet processes, so it is anticipated that particulate emissions would be negligible. Therefore, pursuant to 326 IAC 6-3-1(b)(14), each of the five (5) cold cleaner degreaser units, collectively identified as the Parts Washers, in the degreasing operations are exempt from the requirements of 326 IAC 6-3, because potential particulate emissions from each of these units are less than five hundred fifty-one thousandths (0.551) pound per hour.

*See TSD Appendices A.1 and A.2, for the detailed calculations.*

- (b) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
The degreasing operations, including five (5) cold cleaner degreaser units, collectively identified as the Parts Washers, are otherwise subject to the requirements of 326 IAC 8-3 (Organic Solvent Degreasing Operations). Therefore, the requirements of 326 IAC 8-1-6 do not apply to the degreasing operations, including five (5) cold cleaner degreaser units collectively identified as the Parts Washers, and are not included in the permit.
- (c) 326 IAC 8-3 (Organic Solvent Degreasing Operations)  
Pursuant to 326 IAC 8-3-1 (Organic Solvent Degreasing Operations), the degreasing operations, including five (5) cold cleaner degreaser units collectively identified as the Parts Washers, are subject to the requirements of 326 IAC 8-3-2 (Cold cleaner degreaser control equipment and operating requirements) and 326 IAC 8-3-8 (Material requirements for cold cleaner degreasers), because each unit, constructed after the July 1, 1990, meets the definition of a cold cleaner degreaser under 326 IAC 1-2-18.5, utilizing an organic solvent containing volatile organic compounds (VOCs) (as defined by 326 IAC 1-2-90), and has with an air to solvent interface of one (1) square meter (ten and eight-tenths (10.8) square feet) or greater.
- (d) 326 IAC 8-3-2 (Cold Cleaner Operation)  
Pursuant to 326 IAC 8-3-2 (Cold cleaner degreaser control equipment and operating requirements):
  - (1) The Permittee shall ensure the following control equipment and operating requirements are met:
    - (A) Equip the degreaser with a cover.
    - (B) Equip the degreaser with a device for draining cleaned parts.
    - (C) Close the degreaser cover whenever parts are not being handled in the degreaser.
    - (D) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
    - (E) Provide a permanent, conspicuous label that lists the operating requirements in (a)(3), (a)(4), (a)(6), and (a)(7) of this condition.
    - (F) Store waste solvent only in closed containers.

- (G) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.
- (2) The Permittee shall ensure the following additional control equipment and operating requirements are met:
  - (A) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
    - (i) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (ii) A water cover when solvent used is insoluble in, and heavier than, water.
    - (iii) A refrigerated chiller.
    - (iv) Carbon adsorption.
    - (v) An alternative system of demonstrated equivalent or better control as those outlined in (b)(1)(A) through (D) of this condition that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
  - (B) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
  - (C) If used, solvent spray:
    - (i) must be a solid, fluid stream; and
    - (ii) shall be applied at a pressure that does not cause excessive splashing.
- (e) 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers)  
Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), on and after January 1, 2015:
  - (1) The Permittee shall not operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
  - (2) The following records shall be maintained for each purchase of cold cleaner degreaser solvent:
    - (A) The name and address of the solvent supplier.
    - (B) The date of purchase (or invoice/bill dates of contract servicer indicating service date).
    - (C) The type of solvent purchased.
    - (D) The total volume of the solvent purchased.
    - (E) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
  - (3) All records required by 326 IAC 8-3-8(c)(2) shall be:

- (A) retained on-site or accessible electronically from the site for the most recent three (3) year period; and
  - (B) reasonably accessible for an additional two (2) year period.
- (f) 326 IAC 8-6-1 (Organic Solvent Emission Limitations)  
The unlimited potential VOC emissions from the degreasing operations, including five (5) cold cleaner degreaser units collectively identified as the Parts Washers, constructed after July 1, 1990, is less than 100 tons per year ("worst case" unlimited potential emissions are less than one (1) ton per year, combined). Therefore, the requirements of 326 IAC 8-6-1 (Organic Solvent Emission Limitations) do not apply to the degreasing operations, including five (5) cold cleaner degreaser units collectively identified as the Parts Washers, and are not included in the permit.
- See TSD Appendices A.1 and A.2, for the detailed calculations.*
- (g) There are no other 326 IAC 8 Rules that are applicable to the degreasing operations, including five (5) cold cleaner degreaser units collectively identified as the Parts Washers.

***Gasoline Dispensing Facilities (IR-GDF and CIF-GDF)***

- (a) 326 IAC 8-4-6 (Gasoline Dispensing Facilities)  
This existing stationary source is located in Madison County, which is not one of the counties specifically listed in 326 IAC 8-4-1(a) or 326 IAC 8-4-1(b). Additionally, gasoline throughput for each dispensing facility is less than 10,000 gallons per month (326 IAC 8-4-1(d)). Therefore, the requirements of 326 IAC 8-4-6 do not apply to either of the gasoline fuel transfer and dispensing facilities, IR-GDF or CIF-GDF, and are not included in the permit.
- (b) There are no other 326 IAC 8 Rules that are applicable to the gasoline fuel transfer and dispensing operation.

***Fuel Storage Tanks (gasoline and diesel)***

- (a) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
The VOC potential emissions from the below fuel storage tanks, are less than twenty-five (25) tons per year, combined, therefore the requirements of 326 IAC 8-1-6 do not apply and are not included in the in the permit:
- (1) 100 gallon moveable gasoline transfer tank (IR-AST1), constructed in 1983;
  - (2) 500 gallon moveable diesel fuel oil transfer tank on a trailer (IR-AST2), constructed in 1983;
  - (3) 5,000 gallon aboveground gasoline storage tank (CIF-AST1), constructed in 2014;
  - (4) 5,000 gallon aboveground diesel fuel oil storage tank (CIF-AST2), constructed in 2013;
  - (5) 2,000 gallon aboveground diesel fuel oil storage tank (CIF-AST3), constructed in 2014;
  - (6) 1,000 gallon aboveground diesel fuel oil storage tank (CIF-AST4), constructed in 2014; and
  - (7) 3,400 gallon diesel fuel oil storage tank (PJCF-AST1), constructed in 2000.

*See Appendices A.1 and A.2, for the detailed calculations.*

- (b) 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)
- (1) The below fuel storage tanks, each have a maximum storage capacity of less than thirty-nine thousand (39,000) gallons, therefore, the requirements of 326 IAC 8-4-3 do not apply to any of these tanks and are not included in the permit:
    - (1) 100 gallon moveable gasoline transfer tank (IR-AST1), constructed in 1983;
    - (2) 500 gallon moveable diesel fuel oil transfer tank on a trailer (IR-AST2), constructed in 1983;

- (3) 5,000 gallon aboveground gasoline storage tank (CIF-AST1), constructed in 2014;
  - (4) 5,000 gallon aboveground diesel fuel oil storage tank (CIF-AST2), constructed in 2013;
  - (5) 2,000 gallon aboveground diesel fuel oil storage tank (CIF-AST3), constructed in 2014;
  - (6) 1,000 gallon aboveground diesel fuel oil storage tank (CIF-AST4), constructed in 2014; and
  - (7) 3,400 gallon diesel fuel oil storage tank (PJCF-AST1), constructed in 2000.
- (c) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)  
This existing stationary source is located in Madison County, not Clark, Floyd, Lake, or Porter Counties. Therefore, the requirements of 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels) do not apply to any of the fuel storage tanks, and are not included in the permit.
- (d) There are no other 326 IAC 8 Rules that are applicable to the existing storage tanks.

### ***Welding, Metal Grinding, and Metal Machining***

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

Pursuant to 326 IAC 6-3-1(a), particulate emissions from manufacturing processes located anywhere in the state shall be limited unless specifically exempted under 326 IAC 6-3-1(b) or superseded by a more stringent particulate matter limitation as provided for under 326 IAC 6-3-1(c). Therefore, the following applies:

- (1) Pursuant to 326 IAC 6-3-1(b)(9), welding operations that consume less than six hundred twenty-five (625) pounds of rod or wire per day, are specifically exempted from the rule.
  - (A) The Pendleton Correctional Facility (IR) submerged arc welding (SAW) station consumes a maximum of 32.4 pounds of electrode per day, therefore the requirements of 326 IAC 6-3 do not apply to the SAW station, and are not included in the permit;
  - (B) The Pendleton Correctional Facility (IR) Metal Inert Gas (MIG) welding station consumes a maximum of 12.0 pounds of electrode per day, therefore the requirements of 326 IAC 6-3 do not apply to the MIG welding station, and are not included in the permit;
  - (C) The Pendleton Correctional Facility (IR) Tungsten Inert Gas (TIG) welding station consumes a maximum of 12.0 pounds of electrode per day, therefore the requirements of 326 IAC 6-3 do not apply to the TIG welding station, and are not included in the permit; and
  - (D) The Correctional Industrial Facility (CIF) three (3) submerged arc welding (SAW) stations consume a maximum of 20.2 pounds of electrode per day, each, therefore the requirements of 326 IAC 6-3 do not apply to the SAW stations, and are not included in the permit; and
- (2) Pursuant to 326 IAC 6-3-1(b)(10), torch cutting, provided that less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less is cut is exempt from this rule.

The Pendleton Correctional Facility (IR) plasma cutting station is used to cut a maximum of 0.75 inch metal thickness at a maximum rate of 2,880 inches per hour, therefore the requirements of 326 IAC 6-3 do not apply to the plasma cutting station, and are not included in the permit.

- (3) Pursuant to 326 IAC 6-3-1(b)(13), manufacturing processes that meet the definition of a Trivial Activity as defined at 326 IAC 2-7-1(40) are specifically exempted from the requirements of 326 IAC 6-3. Additionally, pursuant to 326 IAC 6-3-1(b)(14), manufacturing processes with potential emissions less than 0.551 pounds per hour are specifically exempted from the requirements of 326 IAC 6-3.
- (A) The potential particulate emissions from the Correctional Industrial Facility's (CIF) three (3) grinding stations (CIF-MGS1 through CIF-MGS3) are 0.006 pounds per hour, and less than one (1) pound per day, combined. Additionally, this manufacturing process meets the definition of a Trivial Activity. Therefore, pursuant to 326 IAC 6-3-1(b)(13) and (b)(14), the three (3) grinding stations are exempt from 326 IAC 6-3, and the requirements are not included in the permit; and
- (B) The potential particulate emissions from the Correctional Industrial Facility's (CIF) two (2) CNC machines, identified as R-1 and R-2, less than 0.551 pounds per hour, and less than one (1) pound per day, combined, since an aqueous cutting coolant is used to lubricate and cool the worksite. Additionally, this manufacturing process meets the definition of a Trivial Activity. Therefore, pursuant to 326 IAC 6-3-1(b)(13) and (b)(14), the two (2) CNC machines are exempt from 326 IAC 6-3, and the requirements are not included in the permit

*See TSD Appendices A.1 and A.2, for the detailed calculations.*

***Insignificant Natural Gas Combustion Units - Direct-fired heaters (B-20 through B-28 and B-38 through B-57)***

- (a) 326 IAC 1-7 (Stack Height)  
The unlimited and uncontrolled potential to emit (PTE) PM10, PM2.5, and SO2 from the insignificant natural gas-fired, direct-fired heaters B-20 through B-28 and B-38 through B-57, are less than twenty-five (25) tons per year, each. Therefore, the requirements of 326 IAC 1-7 do not apply to any of the direct-fired heaters, and are not included in the permit.
- See TSD Appendices A.1 and A.2, for the detailed calculations.*
- (b) 326 IAC 4-2-2 (Incinerators)  
Direct-fired heaters B-20 through B-28 and B-38 through B-57, are each not incinerators, as defined by 326 IAC 1-2-34, because they do not burn waste substances. Therefore, the requirements of 326 IAC 4-2-2 do not apply to any of the direct-fired heaters, and are not included in the permit.
- (c) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)  
Each of the insignificant natural gas-fired direct-fired heaters B-20 through B-28 and B-38 through B-57, do not meet the definition of an indirect heating unit, as defined in 236 IAC 1-2-19. Therefore, the requirements of 326 IAC 6-2 do not apply to any of the direct-fired heaters, and are not included in this permit.
- (d) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
Each of the insignificant natural gas-fired direct-fired heaters B-20 through B-28 and B-38 through B-57, are not subject to the requirements of 326 IAC 6-3, since they are each not a "manufacturing process" as defined by 326 IAC 6-3-1.5.
- (e) 326 IAC 7-1.1 Sulfur Dioxide Emission Limitations  
The unlimited and uncontrolled potential to emit (PTE) SO2 from each of the insignificant direct-fired heaters B-20 through B-28 and B-38 through B-57, are less than twenty-five (25) tons per year, or 10 pounds/hour, each. Therefore, the requirements of 326 IAC 7-1.1 do not apply to any of the insignificant boilers and/or hot water heaters, and are not included in the permit.

*See TSD Appendices A.1 and A.2, for the detailed calculations.*



- (f) 326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)  
The unlimited VOC potential emissions from the insignificant natural gas-fired direct-fired heaters B-20 through B-28 and B-38 through B-57 are less than twenty-five (25) tons per year, each. Therefore, the requirements of 326 IAC 8-1-6 do not apply to any of the direct-fired heaters, and are not included in the permit.

*See TSD Appendices A.1 and A.2, for the detailed calculations.*

- (g) 326 IAC 9-1 (Carbon Monoxide Emission Limits)  
The requirements of 326 IAC 9-1 are not included in the permit for any of the direct-fired combustion units at this source because this existing correctional institution does not operate any catalyst regeneration petroleum cracking system or a petroleum fluid coker, grey iron cupola, blast furnace, basic oxygen steel furnace, or other ferrous metal smelting equipment.
- (i) 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)  
Direct-fired heaters B-20 through B-28 and B-38 through B-57 are each not subject to the requirements of 326 IAC 10-3, because each direct-fired heater is not a blast furnace gas-fired boiler, a Portland cement kiln, or any facility specifically listed under 326 IAC 10-3-1(a)(2).

### Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

#### *Compliance Determination and Testing Requirements*

- (a) The compliance determination requirements applicable to this source are as follows:
- (1) In order to comply with the particulate emission limits in the permit, the cyclone serving Boiler B-1, shall be in operation, and control emissions from Boiler B-1 at all times when the boiler is in operation. *This is an existing requirement for this source.*
  - (2) The fuel characteristics (i.e., composition of wood chips, sulfur content) and usage rates will be used to verify compliance with the 40 CFR 60, Subpart Dc SO<sub>2</sub> emission limit, FESOP Minor limits for SO<sub>2</sub>, NO<sub>x</sub>, and CO. *This is a revised requirement for this source*
  - (3) Confirmation of the VOC content of the coatings used in the Autobody Refinishing Operation (IR-ARO) is required to determine compliance with the provisions of 326 IAC 8-10 (Automobile Refinishing), as follows:

***This is a new requirement to the source. This is a Title I change.***

Emission Unit/Control	Control ID / Stack ID	Operating Parameter	Method
Autobody Refinishing Operations <sup>(3)</sup>	Uncontrolled / vents indoors	VOC content	Preparing or obtaining the "as supplied" and "as applied" HAP/VOC data sheets
			Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4

(b) The testing requirements applicable to this source are as follows:

Emission Unit	Control Device / Stack ID	Pollutant	Timeframe for Testing	Frequency of Testing
Wood-fired Boiler B-1 <sup>(1)</sup>	Cyclone / stack S-B-1	PM	Within 5 yrs of last valid test.	Once every five (5) years

(1) Post-baghouse testing is required to demonstrate compliance with the particulate emission limits established under 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units). The last valid stack test occurred on February 11, 2014. The source was in compliance at that time.

Note: The 326 IAC 6-2 emission limitation for Boiler B-1 is 0.2436 lb/MMBtu and the AP 42 emission factor for dry wood combustion using a mechanical collector for particulate control is 0.30 lb/MMBtu. Although the AP 42 PM emission factor is rated excellent, it represents an average of the test data collected. Therefore testing is required to demonstrate that Boiler B-1 can comply with use of a cyclone as control.

***This is a revised requirement for this source. This is a Title I change.***

*Compliance Monitoring Requirements*

(c) The compliance monitoring requirements applicable to the source are as follows:

Emission Unit	Control ID / Stack ID	Operating Parameters	Frequency	Range	Excursions and Exceedances
Wood-fired Boiler B-1 <sup>(1)</sup>	Cyclone / stack S-B-1	Visible Emissions	Once per day	normal/abnormal	Response Steps
		Failure Detection	As needed	normal/abnormal	Response Steps
Dual Fuel-Fired Boilers B-4 and B-5 <sup>(2)</sup>	Uncontrolled / Stacks S-B-4 and S-B-5	Visible Emissions	Once per day	normal/abnormal	Response Steps

(1) These monitoring conditions are necessary because the cyclone serving the Wood-fired Boiler B-1 must operate properly to ensure compliance with 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units).

(2) These monitoring conditions are necessary to ensure compliance with 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units).

## Proposed Changes

The following changes listed below are due to the proposed revision:

1. Throughout the permit, all references to the biomass-fired boiler (B-1) have been revised to reflect the approval for Boiler B-1 to combust only wood chips;
2. The permit has been revised to incorporate multiple new insignificant activities, since the Correctional Industrial Facility (CIF) and Pendleton Juvenile Correctional Facility (PJCF) are being added to the permit as one (1) source with the Pendleton Correctional Facility (IR), including:
  - A. the two (2) diesel fuel-fired emergency generators, located at CIF;
  - B. multiple natural gas-fired combustion units, located at IR, CIF, and PJCF;
  - C. grinding operations, located at CIF;
  - D. two (2) CNC Machines using coolant, located at CIF;
  - E. three (3) arc welding stations, located at CIF; and
  - F. a new portable abrasive blast unit and diesel-fired generator for use in construction and demolition activities.
3. A new condition A.2 - Source Definition, has been added to include the determination that the three (3) correctional facilities in Pendleton, Indiana are being permitted as one (1) source;
4. Existing condition A.2 - Emission Units and Pollution Control Equipment Summary, renumbered as A.3, has been revised to incorporate emission unit descriptions for two (2) diesel fuel-fired emergency generators, located at IR and PJCF, and the autobody refinishing operations, located at IR;
5. Existing Condition A.2 - Emission Units and Pollution Control Equipment Summary, renumbered as A.3, and the Emission Unit descriptions in Section D.1 - Emissions Unit Operation Conditions for Boilers B-1 through B-5 have been revised to reflect the correction to the maximum heat input capacities of boilers B-4 and B-5;
6. Existing Condition D.1.1 - Fuel Usage, renamed FESOP and PSD Minor Limits: SO<sub>2</sub>, NO<sub>x</sub>, CO, and HAPs, has been revised to incorporate the clean wood requirement for Wood-Fired Boiler B-1, new wood chips and natural gas fuel usage limitations for Boilers B-1 through B-5, to revise the existing No. 2 fuel oil usage limitation, to add SO<sub>2</sub> and green house gas limitations and revise the existing NO<sub>x</sub> and CO emission limitations, all needed to maintain the FESOP status of the source;
7. Conditions D.1.1 - FESOP and PSD Minor Limits: SO<sub>2</sub>, NO<sub>x</sub>, CO, and HAPs, D.1.7 - Multiple Fuel Usage, D.1.12 - Record Keeping Requirements, and D.1.13 - Reporting Requirements, have been revised to include the new greenhouse gasses emission limit, and accompanying compliance determination, recordkeeping and reporting;
8. A new Condition D.1.2 - Startup, Shutdown, and Other Opacity Limits, has been added to incorporate the requirements of 326 IAC 5-1-3 for the wood-fired boiler (B-1);
9. Existing Condition D.1.2 - Particulate, renamed D.1.3 - Particulate Emission Limits for Indirect Heating Units, has been revised to reflect the conversion of Boiler B-1 from biomass to wood chips. Additionally, corrections have been made to the limits for Boilers B-2 through B-5 based on a review of historic data;
10. A new Condition D.1.6 - Fuel Specifications, has been added to provide compliance determination for the clean wood requirements contained in Condition D.1.1(a)(2) and D.1.1(a)(3);
11. Existing condition D.1.5 - Particulate Control, has been renumbered as D.1.9 and renamed as Particulate Control (PM/PM<sub>10</sub>/PM<sub>2.5</sub>);

12. Existing Conditions D.1.6 - Nitrogen Oxides Emissions and D.1.7 - Carbon Monoxide Emissions have been combined as new Condition D.1.8 - Multiple Fuel Usage and updated to reflect the replacement of biomass with wood chips. Additionally, equations for SO<sub>2</sub> have been added to allow the source to determine compliance with the associated limits contained in Condition D.1.1(c) - Multiple Fuel Usage Limitations;
13. Existing Condition D.1.8 - Testing Requirements, renumbered as D.1.10, has been revised to reflect the conversion of Boiler B-1 from biomass to wood chips. Testing of the Boiler (B-1) is required to determine compliance with 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating);
24. Existing Condition D.1.9 - Visible Emissions Notations, renumbered as D.1.11, has been revised to reflect the conversion of Boiler B-1 from biomass to wood chips;
15. Existing Conditions D.1.12 - Record Keeping Requirements and D.1.14 - Reporting Requirements have been revised to reflect the changes made to the previous conditions. References have been added and/or updated as needed;
16. Existing Section D.2 - Emissions Unit Operation Conditions for the Material Handling Operations has been revised to reflect the change from biomass to wood chips. Conditions D.2.2 through D.2.8 have been deleted since a control device is no longer needed for the source to comply with the limits in the permit;
17. A new condition D.3 - , has been added to incorporate the requirements of 326 IAC 8-10 (Automobile Refinishing) for the autobody refinishing operations, located at the IR. A copy of the rule has been attached to the back of the permit, included as Attachment E of the permit;
18. A new condition D.5 - Emissions Unit Operation Conditions has been added to incorporate the requirements of 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating ) for the multiple natural gas-fired boilers and hot water heaters (i.e., indirect heating units), located at the IR, CIF, and PJCF;
19. A new Section E.1 - NSPS Requirements, has been added to incorporate the requirements of the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc] by reference. A copy of the rule has been attached to the back of the permit, included as Attachment A of the permit;
20. A new Section E.2 - NESHAP Requirements, has been added to incorporate the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Industrial, Commercial, and Institutional Boilers Area Sources [40 CFR 63, Subpart JJJJJJ] for the wood-fired Boiler B-1, and dual fuel-fired Boilers B-4, and B-5 by reference. A copy of the rule has been attached to the back of the permit, included as Attachment B of the permit;
21. A new Section E.3 - NESHAP Requirements, has been added to incorporate the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources [40 CFR 63, Subpart HHHHHH] for the autobody refinishing operation, identified as AR-1, by reference. A copy of the rule has been attached to the back of the permit, included as Attachment C of the permit;
22. A new Section E.4 - NESHAP Requirements, has been added to incorporate the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Category Gasoline Dispensing Facilities [40 CFR Part 63, Subpart CCCCCC] for the two (2) gasoline fuel transfer and dispensing operations, located at the Pendleton Correctional Facility (IR-GDF) and the Correctional Industrial Facility (CIF-GDF) by reference. A copy of the rule has been attached to the back of the permit, included as Attachment D of the permit; and

23. The FESOP Quarterly Reports contained at the back of the permit have been revised to reflect the changes made to the permit;

IDEM, OAQ has made additional revisions to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

1. Throughout the permit, the emission unit descriptions have been revised to more closely reflect the actual operating conditions, and for clarity;
2. IDEM, OAQ has decided to remove all references to the source mailing address. IDEM, OAQ will continue to maintain records of the mailing address.
3. For clarity, IDEM has changed references to the general conditions: *"in accordance with Section B"*, *"in accordance with Section C"*, or other similar language, to "Section C ... contains the Permittee's obligations with regard to the records required by this condition."
4. IDEM has decided that the phrases *"no later than"* and *"not later than"* are clearer than *"within"* in relation to the end of a timeline. Therefore, all timeline have been switched to *"no later than"* or *"not later than"* except for the timeline(s) in Section B - Emergency Provisions because the underlying rule(s) state(s) for these conditions specify *"within."*
5. Section B -Duty to Provide Information has been revised.
6. IDEM has determined that rather than having a Certification condition and various references throughout the permit as to whether a particular report, notice, or correspondence needs to include a certification, the specific conditions that require an affirmation of truth and completeness shall state so. The certification condition has been removed. All statements to whether a certification, pursuant to the former Section B - Certification, is needed or not have been removed. Additionally, Section B - Certification has been revised to be consistent with the rule;  
  
Section B - Credible Evidence and Section C - Asbestos Abatement Projects still require certification as the underlying rules also require certifications.
7. To clarify that Section B - Certification only states what a certification must be, IDEM has revised the condition.
8. IDEM has decided to clarify what rule requirements a certification needs to meet. IDEM has decide to remove the last sentence dealing with the need for certification from the forms because the Conditions requiring the forms already address this issue.
9. On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule sites listed in the permit. These changes are not changes to the underlining provisions. The change is only to site of these rules in Section B - Operational Flexibility. IDEM, OAQ has clarified the rule cites for the Preventive Maintenance Plan.
10. IDEM has decided to clarify Section B - Preventive Maintenance Plan. IDEM has added a new paragraph (b) to handle a future situation where the Permittee adds units that need preventive maintenance plans developed. Additionally, IDEM has decided to clarify other aspects of Section B - Preventive Maintenance Plan. Finally, IDEM, OAQ has clarified the rule cites for the Preventive Maintenance Plan
10. IDEM is revising Section B - Emergency Provisions to delete paragraph (h). 326 IAC 2-8-4(3) (C) (ii) allows that deviations reported under an independent requirement do not have to be included in the Quarterly Deviation and Compliance Monitoring Report.
11. IDEM has decided to state which rule establishes the authority to set a deadline for the Permittee to submit additional information. Therefore, Section B - Permit Renewal has been revised.

12. IDEM has added 326 IAC 5-1-1 to the exception clause of Section C - Opacity, since 326 IAC 5-1-1 does list exceptions.
13. IDEM has revised Section C - Incineration to more closely reflect the two underlying rules.
14. IDEM has changed the title, order, and wording of the condition formerly entitled Section C - Fugitive Dust Emissions to match 326 IAC 6.8-10-3.
15. IDEM has added the Southeastern Regional Office to Section B - Emergency Provisions, as applicable.
16. IDEM has removed the first paragraph of Section C - Performance Testing due to the fact that specific testing conditions elsewhere in the permit will specify the timeline and procedures.
17. IDEM has removed Section C - Monitoring Methods. The conditions that require the monitoring or testing, if required, state what methods shall be used.
18. IDEM has revised Section C - Compliance Monitoring. The reference to recordkeeping has been removed due to the fact that other conditions already address recordkeeping. The voice of the condition has been change to clearly indicate that it is the Permittee that must follow the requirements of the condition.
19. IDEM has revised Section C - Response to Excursions or Exceedances. The introduction sentence has been added to clarify that it is only when an excursion or exceedance is detected that the requirements of this condition need to be followed. The word "excess" was added to the last sentence of paragraph (a) because the Permittee only has to minimize excess emissions. The middle of paragraph (b) has been deleted as it was duplicative of paragraph (a). The phrase "or are returning" was added to subparagraph (b)(2) as this is an acceptable response assuming the operation or emission unit does return to normal or its usual manner of operation. The phrase "within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable" was replaced with "normal or usual manner of operation" because the first phrase is just a limited list of the second phrase. The recordkeeping required by paragraph (e) was changed to require only records of the response because the previously listed items are required to be recorded elsewhere in the permit.
20. DEM has revised Section C - Actions Related to Noncompliance Demonstrated by a Stack Test. The requirements to take response steps and minimize excess emissions have been removed because Section C - Response to Excursions or Exceedances already requires response steps related to exceedances and excess emissions minimization. The start of the timelines was switched from "the receipt of the test results" to "the date of the test." There was confusion if the "receipt" was by IDEM, the Permittee, or someone else. Since the start of the timelines has been moved up, the length of the timelines was increased. The new timelines require action within a comparable timeline; and the new timelines still ensure that the Permittee will return to compliance within a reasonable timeframe.
21. Paragraph (b) of Section C - Emission Statement has been removed. It was duplicative of the requirement in Section C - General Reporting Requirements.
22. IDEM clarified Section C - Instrument Specifications to indicate that the analog instrument must be capable of measuring the parameters outside the normal range.
23. IDEM, OAQ has clarified the Permittee's responsibility with regards to record keeping. Additionally, IDEM added "where applicable" to the lists in Section C - General Record Keeping Requirements to more closely match the underlying rule.
24. IDEM is changing the Section C Compliance Monitoring Condition to more clearly describe when new monitoring for new and existing units must begin.
25. The voice of paragraph (b) of Section C - General Record Keeping Requirements has been change to more clearly indicate that it is the Permittee that must follow the requirements of the paragraph.

26. IDEM, OAQ has decided that having a separate condition for the reporting of deviations is unnecessary. Therefore, IDEM has removed Section B - Deviation form Permit Requirements and Conditions and added the requirements of that condition to Section C - General Reporting Requirements. Paragraph (d) of Section C - General Reporting Requirements has been removed because IDEM already states the timeline and certification needs of each report in the condition requiring the report.
27. IDEM has decided to simplify the referencing in Section C - Compliance with 40 CFR 82 and 326 IAC 22-1.
29. IDEM has decided to clarify Section D - Testing Requirements.
29. IDEM has included the replacement of an instrument as an acceptable action.
30. IDEM has decided to allow the Permittee the option of using manufacturer's recommendations for the calibration frequency.
31. The word "status" has been added to Section D - Reporting Requirements. The Permittee has the obligation to document the compliance status. The wording has been revised to properly reflect this.
32. The phrase "of this permit" has been added to the paragraph of the Quarterly Deviation and Compliance Monitoring Report to match the underlying rule.
33. Existing Section D.3 - Emissions Unit Operation Conditions for the Degreasing Operations, renumbered D.4, has been revised to reflect the March 1, 2013, update to 326 IAC 8-3 (Organic Solvent Degreasing Operations). Additionally, the requirements of 326 IAC 8-3-8 have been added;
34. IDEM, OAQ has clarified the interaction of the Quarterly Deviation and Compliance Monitoring Report and the Emergency Provisions; and
35. IDEM has determined that the Semi- Annual Natural Gas Fired Boiler Certification is no longer necessary, since the source will determine compliance with the fuel usage limits in the permit using an equation. Additionally, record keeping and reporting require tracking the amount of each fuel used per month. The form has been deleted.

Unaffected permit conditions have been re-numbered and the Table of Contents updated, as applicable. The Permit has been revised as follows, with deleted language shown as ~~strikeouts~~ and new language **bolded**.

**A.1 General Information [326 IAC 2-8-3(b)]**

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The Permittee owns and operates a stationary correctional **institution** facility.

Source Address:	4490 W. <del>est</del> Reformatory Road, Pendleton, Indiana 46064
<del>Mailing Address:</del>	<del>4490 West Reformatory Road, Pendleton, Indiana 46064</del>
General Source Phone Number:	765- 778-2107
SIC Code:	9223 ( <b>Correctional Institutions</b> )
County Location:	Madison
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit <b>Program</b> ( <del>FESOP</del> ) 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 Source Definition [326 IAC 2-8-1] [326 IAC 2-7-1(22)]**

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**This source consists of three (3) plants, as follows:**

- (a) **The Pendleton Correctional Facility (IR) (source #095-00006), 4490 West Reformatory Road, Pendleton, IN 46064;**
- (b) **The Correctional Industrial Facility (CIF) (source #095-00104), 5124 Reformatory Rd., Pendleton, IN 46064; and**
- (c) **The Pendleton Juvenile Correctional Facility (PJCF), 9310 South State Road 67, Pendleton, IN 46064.**

**All three (3) plants are located on the same contiguous property, have the same Standard Industrial Classification (SIC) code (9223), and are under common ownership and common control. Therefore, all three plants will be considered one (1) "major source", as defined by 326 IAC 2-7-1(22), effective from the date of issuance of this FESOP Renewal, No. F095-32852-00006.**

**A.32 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]**

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

***Pendleton Correctional Facility (IR)***

- (a) ~~One (1) biomass-fired boiler system including one (1) boiler identified as boiler B-1, constructed in 1967, approved for modification in 2007 and modified in 2008, capable of combusting untreated corn, wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, with a maximum heat input capacity of 27.5 million British thermal units per hour, and one (1) natural gas ignition burner with a maximum heat input capacity of 1.075 MMBtu/hr for cold boiler starts with emissions controlled by a cyclone, and exhausting to a stack~~

**One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;**

**Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.**

- (b) ~~One (1) natural gas-fired boiler, identified as Boiler B-2, constructed in 1961~~<sup>1968</sup> ~~as a coal-fired boiler, and modified in 1998 to burn only natural gas, identified as boiler B-2,~~ with a maximum heat input capacity of 79.13 million British thermal units per hour, with emissions exhausting to stack S-B-2.
- (c) ~~One (1) natural gas-fired boiler, identified as Boiler B-3, constructed in 1968 as a coal-fired boiler, and modified in 1998 to burn only natural gas, identified as boiler B-3,~~ with a maximum heat input capacity of 98.9 million British thermal units per hour, with emissions exhausting to stack S-B-3.
- (d) ~~One (1) dual natural gas and No. 2 fuel oil-fired boiler, identified as boiler B-4, constructed in 1983~~<sup>1985</sup> ~~with a maximum heat input capacity of 41.00~~<sup>37.5</sup> million British thermal units per hour, **combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and with emissions exhausting to stack S-B-4.**

**Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this is considered an affected facility.**



- (e) One (1) ~~dual natural gas and No. 2 fuel oil-fired boiler, constructed in 1995, identified as bBoiler B-5, constructed in 1995,~~ with a maximum heat input capacity of ~~61.8956-25~~ million British thermal units per hour, **combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and with emissions** exhausting to stack S-B-5.

**Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.**

- (f) One (1) **wood chip** biomass handling and storage operation, **identified as IR-WCHS, constructed** ~~approved for construction in 2007, and modified in 2008~~ consisting of the following:

- (1) One (1) truck unloading operation with a maximum throughput of ~~18,400~~**224,000** pounds of **wood chips** biomass per hour.
- (2) One (1) **wood chip** biomass storage silo, with a maximum storage capacity of ~~220,000~~**762,552** pounds of **wood chips** biomass (volumetric capacity ~~10,598~~**15,987** cubic feet), with emissions controlled by a baghouse.
- (3) One (1) **wood chip** biomass handling system with a maximum throughput of ~~3252,000~~ pounds of **wood chips** per hour, with emissions controlled by a baghouse, including: six (6) augers, one (1) conveyor, one (1) bucket elevator, and one (1) metering bin; **and**

- ~~(g) One (1) ash disposal system, approved for construction in 2007, with a maximum throughput of 500 pounds of ash per hour, with emissions controlled by a cyclone including three (3) augers.~~

- (g) **One (1) 2,922.0 Hp diesel fuel-fired emergency generator, identified as G-1, constructed in 2002, uncontrolled, and exhausting to the atmosphere;**

- (h) **One (1) autobody refinishing operation, identified as IR-ARO, constructed in 1961, using airless spray application methods to apply a maximum of 0.04 gallons of coatings per hour, and 3.08 gallons per day, to metal automobile bodies, uncontrolled, and exhausting inside the building;**

**Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected facility.**

***Pendleton Juvenile Correctional Facility (PJCF)***

- (i) **One (1) 1,900 Hp diesel fuel-fired emergency generator, identified as G-4, constructed in 2000, uncontrolled, and exhausting to the atmosphere;**

**A.43** Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

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

***Pendleton Correctional Facility (IR)***

- (a) **One (1) enclosed ash disposal system, identified as IR-AWD, constructed in 2007, with a maximum throughput of 500 pounds of ash per hour, uncontrolled, exhausting to the atmosphere, and including: four (4) augers and one (1) covered dumpster;**

(be) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, **including five (5) cold cleaner degreaser units, collectively identified as the Parts Washers, constructed after July 1, 1990;** [326 IAC 8-3-2] **[326 IAC 8-3-8]** [326 IAC 8-3-5]

(ca) A gasoline fuel transfer and dispensing operation, **identified as IR-GDF**, handling less than or equal to ~~20,41,300~~ gallons per day, ~~such as filling of tanks, locomotives, and/or automobiles, having a storage capacity less than or equal to 10,500 gallons and~~ **including one (1) 100 gallon moveable gasoline transfer tank, identified as IR-AST1, constructed in 1983, uncontrolled, and venting to the atmosphere.**

**Under 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, the gasoline fuel transfer and dispensing operation is considered an affected facility.**

(d) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment, **as follows;** [26 IAC 6-3-2]

(1) **One (1) submerged arc welding (SAW) station, with a maximum electrode consumption of 1.35 lbs/hr, uncontrolled, and exhausting inside the building;**

(2) **Four (4) Metal Inert Gas (MIG) (carbon steel) welding stations, with a maximum electrode consumption of 0.5 lbs/hr, each, uncontrolled, and exhausting inside the building;**

(3) **Two (2) Tungsten Inert Gas (TIG) (carbon steel) welding stations, with a maximum electrode consumption of 0.5 lbs/hr, each, uncontrolled, and exhausting inside the building; and**

(4) **One (1) plasma cutting station, cutting a maximum of 0.75 inch metal thickness at a maximum rate of 48 inches per minute, uncontrolled, and exhausting inside the building.**

(e) **Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:**

(1) **Four (4) natural gas-fired radiant heaters, identified as B-20 through B-23, constructed in 1985, with a maximum heat input capacity of 0.10 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;**

(2) **One (1) natural gas-fired furnace, identified as B-24, constructed in 1985, with a maximum heat input capacity of 0.075 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;**

(3) **Two (2) natural gas-fired force air space heaters, identified as B-25 and B-26, constructed in 1985, with a maximum heat input capacity of 0.05 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;**

(4) **One (1) natural gas-fired office space heater, identified as B-27, constructed in 1985, with a maximum heat input capacity of 0.135 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;**

(5) **One (1) natural gas-fired shop space heater, identified as B-28, constructed in 1985, with a maximum heat input capacity of 0.196 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;**

- (6) One (1) natural gas-fired hot water heater, identified as B-29, constructed in 1985, with a maximum heat input capacity of 0.075 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]**
- (bf) One (1) petroleum fuel, other than gasoline, dispensing facility, identified as IR-DDF, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less than or equal to 230,000 gallons per month, including one (1) 500 gallon moveable diesel fuel oil transfer tank on a trailer, identified as IR-AST2, constructed in 1983, uncontrolled, and venting to the atmosphere.**

***Correctional Industrial Facility (CIF)***

- (g) Two (2) 890 Hp diesel fuel-fired emergency generators, identified as G-2 and G-3, constructed in 1991, uncontrolled, and exhausting to the atmosphere;**
- (h) A fuel dispensing station, consisting of:**
  - (1) A gasoline fuel transfer and dispensing operation, identified as CIF-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 5,000 gallon aboveground gasoline storage tank, identified as CIF-AST1, constructed in 2014, uncontrolled and venting to the atmosphere;**

**Under 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, the gasoline fuel transfer and dispensing operation is considered an affected facility.**
  - (2) One (1) petroleum fuel, other than gasoline, dispensing facility, identified as CIF-DFD, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, including;**
    - (1) One (1) 5,000 gallon aboveground diesel fuel oil storage tank, identified as CIF-AST1, constructed in 2013, uncontrolled, and venting to the atmosphere;**
    - (2) One (1) 2,000 gallon aboveground diesel fuel oil storage tank, identified as CIF-AST2, constructed in 2014, uncontrolled, and venting to the atmosphere; and**
    - (3) One (1) 1,000 gallon aboveground diesel fuel oil storage tank, identified as CIF-AST3, constructed in 2014, uncontrolled, and venting to the atmosphere.**
- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment, and including;**
  - (1) Three (3) submerged arc welding (SAW) stations, with a maximum electrode consumption of 0.84 lbs/hr, each, uncontrolled, and exhausting inside the building;**
- (j) Metal machining operations, including the following:**
  - (1) Three (3) grinding stations for machining steel brake shoe frames, identified as CIF-MGS1 through CIF-MGS3, with a maximum throughput**

- capacity of 1,200.0 lbs of frames per hour, combined, uncontrolled, and exhausting inside the building;
- (2) Metal machining where an aqueous cutting coolant continuously floods the machining interface, including: two (2) CNC machines, identified as R-1 and R-2, for drilling holes in steel brake shoe frames, with a maximum throughput capacity of 1,800.0 frames per day, and a maximum usage of 75 gallons of HAP-free coolant per year, combined;
- (k) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
- (1) Five (5) natural gas-fired laundry dryers, identified as B-38 through B-42, constructed in 2009, with a maximum heat input capacity of 0.30 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
  - (2) Eight (8) natural gas-fired baking ovens, identified as B-44 through B-51, constructed in 1985, with a maximum heat input capacity of 0.06 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
  - (3) Four (4) natural gas-fired cooking griddles, identified as B-52 through B-55, constructed in 1985, with a maximum heat input capacity of 0.162 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere;
  - (4) One (1) natural gas-fired large oven, identified as B-56, constructed in 1985, with a maximum heat input capacity of 0.25 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;

***Pendleton Juvenile Correctional Facility (PJCF)***

- (l) One (1) petroleum fuel, other than gasoline, dispensing facility, identified as PJCF-DFD, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less, including one (1) 3,400 gallon diesel fuel oil storage tank, identified as PJCF-AST1, constructed in 2000, uncontrolled, and venting to the atmosphere.
- (m) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
- (1) Two (2) natural gas-fired hot water boilers, identified as B-6 and B-7, constructed in 2000, with a maximum heat input capacity of 1.44 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (2) Eight (8) natural gas-fired boilers, identified as B-8 through B-15, constructed in 2000, with a maximum heat input capacity of 0.25 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (3) Two (2) natural gas-fired boilers, identified as B-16 and B-17, constructed in 2000, with a maximum heat input capacity of 1.44 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (4) Two (2) natural gas-fired hot water boilers, identified as B-18 and B-19, constructed in 2000, with a maximum heat input capacity of 0.5 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (5) Six (6) natural gas-fired hot water heaters, identified as B-30 and B-32 through B-36, constructed in 2000, with a maximum heat input capacity of 1.26

**MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]**

- (6) **One (1) natural gas-fired hot water heater, identified as B-31, constructed in 2000, with a maximum heat input capacity of 0.99 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]**
- (7) **One (1) natural gas-fired hot water heater, identified as B-37, constructed in 2000, with a maximum heat input capacity of 1.8 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]**
- (8) **One (1) natural gas-fired laundry dryer, identified as B-43, constructed in 2000, with a maximum heat input capacity of 0.3 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;**
- (9) **One (1) natural gas-fired air handling unit, identified as B-57, constructed in 2000, with a maximum heat input capacity of 0.1 MMBtu/hr, uncontrolled, and exhausting to the atmosphere;**

***Activities Common to All Three (3) Locations***

- (ne) **Paved and unpaved roads and parking lots with public access; [326 IAC 6-4]**
- (o) **Activities related to routine fabrication, maintenance, and repair of buildings, structures, equipment, or vehicles at the source where air emissions from those activities would not be associated with any commercial production process, including the following:**
  - (1) **Activities associated with the repair and maintenance of paved and unpaved roads, including paving or sealing, or both, of parking lots and roadways.**
  - (2) **Painting, including interior and exterior painting of buildings, and solvent use excluding degreasing operations utilizing halogenated organic solvents.**  
*(Note: this category includes the IR paint shop which uses brush application methods to apply surface coatings only for maintenance purposes)*
  - (3) **Brazing, soldering, or welding operations and associated equipment.**
  - (4) **Batteries and battery charging stations except at battery manufacturing plants.**
  - (5) **Lubrication, including the following:**
    - (A) **Hand-held spray can lubrication.**
    - (B) **Dipping metal parts into lubricating oil.**
    - (C) **Manual or automated addition of cutting oil in machining operations.**
  - (6) **Tarring, re-tarring, and repair of building roofs.**
- (p) **Activities performed using hand-held equipment, including the following:**
  - (1) **Application of hot melt adhesives with no VOC in the adhesive formulation.**

- (2) **Buffing.**
  - (3) **Cutting, excluding cutting torches.**
  - (4) **Drilling.**
  - (5) **Grinding.**
  - (6) **Machining wood, metal, or plastic.**
  - (7) **Polishing.**
  - (8) **Routing.**
  - (9) **Sanding.**
  - (10) **Sawing.**
  - (11) **Surface grinding.**
  - (12) **Turning wood, metal, or plastic.**
- (q) **Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.**
- (r) **Filling drums, pails or other packaging containers with lubricating oils, waxes, and greases.**
- (s) **Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.**
- (t) **Closed loop heating and cooling systems.**
- ~~(uf) Covered conveyors for coal or coke conveying of less than or equal to 360 tons per day;~~
- ~~(g) Blowdown for any of the following: sight glass, boiler, cooling tower, compressors, and pumps and cooling tower;~~
- (v) **Activities associated with emergencies, including the following:**
- (1h) On-site fire and emergency response training approved by the department; **and**
  - ~~(2)(i) Diesel generators not exceeding 1600 horsepower; and~~
  - ~~(j) Stationary fire pumps;—~~
- (w) **Lawn care and landscape maintenance activities and equipment, including the storage, spraying, or application of insecticides, pesticides, and herbicides.**
- (x) **Construction and demolition operations at the source where air emissions from those activities would not be associated with any commercial production process, including the following equipment and activities:**
- (i) **One (1) portable grit blasting unit, identified as GB-2, approved in 2014 for use in construction and demolition operations, with a maximum throughput capacity of 458.2 pounds of coal slag blasting media per hour, operating a maximum of 1,170 hours per twelve (12) consecutive month period, uncontrolled and exhausting to the outdoors; [326 IAC 2-7-1(42)(S)(xi)**
  - (2) **One (1) 225 Hp, portable, diesel-fired air compressor, identified as GB-2a, approved in 2014 for use in construction and demolition operations, operating a maximum of 1,170 hours per twelve (12) consecutive month period, uncontrolled and exhausting to the outdoors. [326 IAC 2-7-1(42)(S)(xi)**
- Under 40 CFR 1068.30, General Compliance Provisions for Highway, Stationary, and Nonroad Programs, this unit is considered a nonroad engine.**

\*\*\*\*\*

**B.1 Definitions [326 IAC 2-8-1]**

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

**B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]**

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- (a) This permit, F095-32852-00006, is issued for a fixed term of ten (10) 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.3 Term of Conditions [326 IAC 2-1.1-9.5]**

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

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

**B.4 Enforceability [326 IAC 2-8-6][IC 13-17-12]**

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

**B.5 Severability [326 IAC 2-8-4(4)]**

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

**B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

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

**B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]**

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

**B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]**

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- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
  - (1) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and

- (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

**B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

**B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]**

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IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.



**B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]**

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- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.12 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

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

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.

- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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

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- (a) All terms and conditions of permits established prior to F095-32852-00006 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.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]**

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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 nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

**B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
**[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification 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).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.16 Permit Renewal [326 IAC 2-8-3(h)]**

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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 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application 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).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
  - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 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 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.17 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]**

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(1) and (c).

- (b) **Emission Trades [326 IAC 2-8-15(b)]**  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).
- (c) **Alternative Operating Scenarios [326 IAC 2-8-15(c)]**  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (d) **Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.**

**B.19 Source Modification Requirement [326 IAC 2-8-11.1]**

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

**B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]**

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

- (a) Enter upon the Permittee's premises where a FESOP 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.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.22 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

**B.23 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314][326 IAC 1-1-6]**

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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 B ————— GENERAL CONDITIONS**

**B.1 — Definitions [326 IAC 2-8-1]**

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

**B.2 — Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]**

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- (a) This permit, F095-16603-00006, is issued for a fixed term of ten (10) 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.3 Term of Conditions [326 IAC 2-1.1-9.5]~~

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

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

~~B.4 Enforceability [326 IAC 2-8-6]~~

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

~~B.5 Severability [326 IAC 2-8-4(4)]~~

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

~~B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]~~

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

~~B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]~~

~~(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.~~

~~(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.~~

~~B.8 Compliance Order Issuance [326 IAC 2-8-5(b)]~~

~~IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.~~

~~B.9 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]~~

~~(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.~~

~~(b) One (1) certification shall be included, using the attached Certification Form or its equivalent, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.~~



(c) — An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

~~B.10 — Annual Compliance Certification [326 IAC 2-8-5(a)(1)]~~

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

~~Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2254~~

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

~~(d) — The annual compliance certification report shall include the following:~~

- ~~(1) — The appropriate identification of each term or condition of this permit that is the basis of the certification;~~
- ~~(2) — The compliance status;~~
- ~~(3) — Whether compliance was continuous or intermittent;~~
- ~~(4) — The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and~~
- ~~(5) — Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.~~

~~The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

~~B.11 — Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]~~

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

- ~~(1) — Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;~~
- ~~(2) — A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and~~
- ~~(3) — Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.~~

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

~~Indiana Department of Environmental Management~~

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

~~The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

- ~~(b) — A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- ~~(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 — Emergency Provisions [326 IAC 2-8-12]~~

---

- ~~(a) — An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.~~
- ~~(b) — An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:~~
- ~~(1) — An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;~~
  - ~~(2) — The permitted facility was at the time being properly operated;~~
  - ~~(3) — During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;~~
  - ~~(4) — For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;~~

~~Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,  
Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865~~

- ~~(5) — For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:~~

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

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

~~The notification which shall be submitted by the Permittee does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

- ~~(6) — The Permittee immediately took all reasonable steps to correct the emergency.~~
  - ~~(c) — In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.~~
  - ~~(d) — This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.~~
  - ~~(e) — The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.~~
  - ~~(f) — Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.~~
  - ~~(g) — Operations may continue during an emergency only if the following conditions are met:
    - ~~(1) — If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.~~
    - ~~(2) — If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
      - ~~(A) — The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and~~
      - ~~(B) — Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.~~~~~~
- ~~Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.~~
- ~~(h) — The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.~~

~~B.13 — Prior Permits Superseded [326 IAC 2-1.1-9.5]~~

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~~(a) — All terms and conditions of permits established prior to F095-16603-00006 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.14 — Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]~~

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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 nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.~~

~~B.15 — Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]~~

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

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

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

~~The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

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

~~B.16 — Permit Modification, Reopening, Revocation and Reissuance, or Termination  
[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]~~

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~~(a) — This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

~~(b) — This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:~~

~~(1) — That this permit contains a material mistake.~~

~~(2) — That inaccurate statements were made in establishing the emissions standards or other terms or conditions.~~

- (3) ~~That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]~~
- (c) ~~Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]~~
- (d) ~~The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]~~

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (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 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by 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 46204-2254

- (b) ~~A timely renewal application is one that is:~~
- (1) ~~Submitted at least nine (9) months prior to the date of the expiration of this permit; and~~
- (2) ~~If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.~~
- (c) ~~If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.~~

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) ~~Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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 46204-2254

~~Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

- ~~(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]~~

~~B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]~~

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- ~~(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:~~

- ~~(1) The changes are not modifications under any provision of Title I of the Clean Air Act;~~
- ~~(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;~~
- ~~(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);~~
- ~~(4) The Permittee notifies the:~~

~~Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2254~~

~~in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and~~

- ~~(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.~~

~~Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).~~

- ~~(b) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).~~

- ~~(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.~~

- ~~(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.~~

~~B.20 Source Modification Requirement [326 IAC 2-8-11.1]~~

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~~A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.~~

~~B.21 — Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC13-30-3-1]~~

~~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 FESOP 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.22 — Transfer of Ownership or Operational Control [326 IAC 2-8-10]~~

- ~~(a) — The Permittee must comply with the requirements of 326 IAC 2-8-10 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 46204-2254~~

~~The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

- ~~(c) — The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]~~

~~B.23 — Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]~~

- ~~(a) — The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.~~
- ~~(b) — Failure to pay may result in administrative enforcement action or revocation of this permit.~~

- (c) ~~The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.~~

~~B.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]~~

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

\* \* \* \* \*

**SECTION C**

**SOURCE OPERATION CONDITIONS**

<b>Entire Source</b>
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**Emission Limitations and Standards [326 IAC 2-8-4(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 Overall Source Limit [326 IAC 2-8]**

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

**(a) Pursuant to 326 IAC 2-8:**

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.**
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and**
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.**

**(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.**

**(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.**

**(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.**

**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]**

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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]**

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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]**

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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 Stack Height [326 IAC 1-7]**

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

**C.8 Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]**

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- (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 demolitions start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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.

#### Testing Requirements [326 IAC 2-8-4(3)]

#### C.9 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. The protocol submitted by the Permittee does not 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).
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does

not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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.10 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 2-8-4][326 IAC 2-8-5(a)(1)]**

**C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]**

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- (a) For new units:  
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:  
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 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, 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).

**C.12 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]**

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

**Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

**C.13 Risk Management Plan [326 IAC 2-8-4][40 CFR 68]**

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

**C.14 Response to Excursions or Exceedances [326 IAC 2-8-4][326 IAC 2-8-5]**

---

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

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

**C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]**

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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 seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

**The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).**

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

**C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]**

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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. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

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.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)][326 IAC 2-1.1-11]**

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(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B – Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

**(b) The address for report submittal is:**

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

**(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.**

**(d) 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.**

**Stratospheric Ozone Protection**

**C.18 Compliance with 40 CFR 82 and 326 IAC 22-1**

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

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**SECTION C SOURCE OPERATION CONDITIONS**

Entire Source

~~Emissions Limitations and Standards [326 IAC 2-8-4(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 Overall Source Limit [326 IAC 2-8] [326 IAC 2-2] [326 IAC 2-3]~~

~~The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.~~

~~(a) Pursuant to 326 IAC 2-8:~~

~~(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset) not applicable;~~

~~(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and~~

- (3) ~~— The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.~~
- (b) ~~— The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.~~
- (c) ~~— This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.~~
- (d) ~~— Section D of this permit contains independently enforceable provisions to satisfy this requirement.~~

~~C.3 — Opacity [326 IAC 5-1]~~

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

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

~~C.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(3)]~~

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

~~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 — Stack Height [326 IAC 1-7]~~

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

~~C.8 — Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]~~

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

- (b) ~~The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:~~
- (1) ~~When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or~~
  - (2) ~~If there is a change in the following:~~
    - (A) ~~Asbestos removal or demolition start date;~~
    - (B) ~~Removal or demolition contractor; or~~
    - (C) ~~Waste disposal site.~~
- (c) ~~The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).~~
- (d) ~~The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).~~

~~All required notifications shall be submitted to:~~

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

~~The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

- (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(e). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.~~
- (f) ~~Demolition and Renovation~~  
~~The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).~~
- (g) ~~Indiana Accredited Asbestos Inspector~~  
~~The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.~~

~~Testing Requirements [326 IAC 2-8-4(3)]~~

~~C.9 Performance Testing [326 IAC 3-6]~~

- (a) ~~All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any~~



~~applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.~~

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

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

~~no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

- ~~(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- ~~(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.10 Compliance Requirements [326 IAC 2-1.1-11]

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

#### Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

##### C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

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

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

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

~~The notification which shall be submitted by the Permittee does require the certification by 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.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]~~

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

~~C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]~~

- ~~(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.~~
- ~~(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.~~

~~Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]~~

~~C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]~~

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

~~C.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]~~

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

- ~~(1) — monitoring data;~~
- ~~(2) — monitor performance data, if applicable; and~~
- ~~— (3) — corrective actions taken.~~

~~C.16 — Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]~~

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

~~The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~

~~Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]~~

~~C.17 — General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]~~

- ~~(a) — Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.~~
- ~~(b) — Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.~~

~~C.18 — General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]~~

- ~~(a) — The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- ~~(b) — The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:~~

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

- ~~(c) — Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or~~

~~certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.~~

- ~~(d) — Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).~~
- ~~(e) — Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.~~

#### Stratospheric Ozone Protection

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

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

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

\* \* \* \* \*

#### SECTION D.1

#### ~~EMISSIONS UNIT FACILITY OPERATION CONDITIONS~~

#### **Emissions Unit Facility Description [326 IAC 2-8-4(10)]: Boilers B-1 through B-5**

#### ***Pendleton Correctional Facility (IR)***

- (a) One (1) biomass-fired boiler system including one (1) boiler identified as boiler B-1, constructed in 1967, approved for modification in 2007 and modified in 2008, capable of combusting untreated corn, wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, with a maximum heat input capacity of 27.5 million British thermal units per hour, and one (1) natural gas ignition burner with a maximum heat input capacity of 1.075 MMBtu/hr for cold boiler starts with emissions controlled by a cyclone, and exhausting to a stack  
**One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;**
- Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.
- (b) One (1) natural gas-fired boiler, **identified as Boiler B-2**, constructed in ~~1961~~1968 as a coal-fired boiler, and modified in 1998 to burn **only** natural gas, ~~identified as boiler B-2~~, with a maximum heat input capacity of 79.13 million British thermal units per hour, with emissions exhausting to

stack S-B-2.

- (c) One (1) natural gas-fired boiler, **identified as Boiler B-3**, constructed in 1968 as a coal-fired boiler, and modified in 1998 to burn **only** natural gas, ~~identified as boiler B-3~~, with a maximum heat input capacity of 98.9 million British thermal units per hour, with emissions exhausting to stack S-B-3.
- (d) One (1) ~~dual natural gas and No. 2 fuel oil~~-fired boiler, identified as ~~b~~**Boiler B-4**, constructed in ~~1983-1985~~, with a maximum heat input capacity of ~~41.00375~~ million British thermal units per hour, **combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and with emissions** exhausting to stack S-B-4.

**Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.**

- (e) One (1) ~~dual natural gas and No. 2 fuel oil~~-fired boiler, constructed in ~~1995~~, identified as ~~b~~**Boiler B-5**, **constructed in 1995**, with a maximum heat input capacity of ~~61.895625~~ million British thermal units per hour, **combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and with emissions** exhausting to stack S-B-5.

**Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.**

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

#### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 FESOP and PSD Minor Limits: SO<sub>2</sub>, NO<sub>x</sub>, and CO Fuel Usage [326 IAC 2-8-4] [326 IAC 2-2] [326 IAC 2-4.1] [326 IAC 4-2] [326 IAC 12] [40 CFR 60, Subpart AAAA] [40 CFR 60, Subpart CCCC] [40 CFR 63, Subpart EEE]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD), 326 IAC 4-2 (Incinerators), and 326 IAC 12 (40 CFR 60, Subpart AAAA, 40 CFR 60, Subpart CCCC, and 40 CFR 63, Subpart EEE) not applicable, the Permittee shall comply with the following:

(a) **Fuel Specifications**

- (1) The Permittee shall only combust the following fuels in the associated emission unit(s):

Fuel	Emission Unit
Chipped clean wood/untreated wood pallets	Boiler B-1
Natural Gas	Boilers B-2 through B-5
No. 2 Fuel Oil	Boilers B-4 and B-5

- (2) The wood chips combusted in the wood-fired boiler (B-1) shall only be generated from "*clean wood*" and/or "*untreated wood pallets*".

For the purposes of this permit, the following definitions shall apply:

- (A) *Clean wood* consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. *Clean wood* does not include wood products that

have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board);

- (B) ***Untreated wood pallets*** are pallets that meet the definition of clean cellulosic biomass, as defined under 40 CFR 241.2, and that have been processed to remove non-wood material that would inhibit combustion, such as screws or plastic fasteners. Clean cellulosic biomass, as defined under 40 CFR 241.2, is biomass that does not contain contaminants (all pollutants listed in Clean Air Act sections 112(b) or 129(a)(4) and the elements chlorine, fluorine, nitrogen, and sulfur) at concentrations not normally associated with virgin biomass materials.

Compliance with this requirement shall render the requirements of 326 IAC 4-2 (Incinerators), and 326 IAC 12 (40 CFR 60, Subpart AAAA - New Source Performance Standards for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 and 40 CFR 60, Subpart EEEE - New Source Performance Standards for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004 or for Which Modification or Reconstruction is commenced on or After June 16, 2006) not applicable.

- (3) The Higher Heating Value (HHV) of dry wood is 17.48 MMBtu/ton for wood with less than 20% moisture content, unless different HHV and percent (%) moisture content values are determined during the latest stack test; and
- (4) The sulfur content of the No. 2 distillate fuel oil, used in Boilers B-4 and B-5, shall not exceed 0.50% by weight.

(b) **Multiple Fuel Usage Limitations**

When combusting more than one fuel per twelve (12) consecutive month period in Boilers B-4 and B-5, emissions from Boilers B-1 through B-5 shall be limited as follows:

- (1) SO<sub>2</sub> emissions from Boilers B-1 through B-5, combined, shall not exceed 92.26 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;
- (2a) ~~The total amount of biomass and natural gas burned by Boilers B-1, B-2, B-3, B-4 and B-5 shall be limited such that NO<sub>x</sub> emissions from Boilers B-1 through B-5, combined, shall not exceed 94.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;~~ and
- (3b) ~~The total amount of biomass and natural gas fuel burned by Boilers B-1, B-2, B-3, B-4 and B-5 shall be limited such that CO emissions from Boilers B-1 through B-5, combined, shall not exceed 90.0 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;~~

- ~~(d) When burning corn in Boiler B-1, the Permittee shall only burn untreated corn. When burning construction debris in Boiler B-1, the Permittee shall only burn clean, untreated construction debris.~~

Compliance with these limits, combined with the potential to emit SO<sub>2</sub>, NO<sub>x</sub>, and CO from all other emission units at this source, shall limit the source-wide total potential to emit of SO<sub>2</sub>,

**NO<sub>x</sub> and CO to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.** The above listed emission limitations for Boilers B-1, B-2, B-3, B-4 and B-5 will limit the source-wide potential to emit of SO<sub>2</sub>, NO<sub>x</sub> and CO to less than 100 tons per twelve (12) consecutive month period each. Compliance with these limits makes 326 IAC 2-7 (Part 70) not applicable and classifies the Pendleton Correctional Facility as an existing minor source under 326 IAC 2-2 (PSD).

**D.1.2 Startup, Shutdown, and Other Opacity Limits [326 IAC 5-1-3]**

Pursuant to 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), the following applies:

- (a) When building a new fire in a boiler, or shutting down a boiler, opacity may exceed the applicable limit established in 326 IAC 5-1-2 and stated in Section C - Opacity. However, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period. Opacity in excess of the applicable limit established in 326 IAC 5-1-2 shall not continue for more than two (2) six (6)-minute averaging periods in any twenty-four (24) hour period.
- (b) When removing ashes from the fuel bed or furnace in a boiler or blowing tubes, opacity may exceed the applicable limit established in 326 IAC 5-1-2 and stated in Section C - Opacity. However, opacity levels shall not exceed sixty percent (60%) for any six (6)-minute averaging period and opacity in excess of the applicable limit shall not continue for more than one (1) six (6)-minute averaging periods in any sixty (60) minute period. The averaging periods shall not be permitted for more than three (3) six (6)-minute averaging periods in a twelve (12) hour period.
- (c) If this facility cannot meet the opacity limitations in (a) of this condition, the Permittee may submit a written request to IDEM, OAM, for a temporary alternative opacity limitation in accordance with 326 IAC 5-1-3(d). The Permittee must demonstrate that the alternative limit is needed and justifiable.

**D.1.23 Particulate Emission Limits for Indirect Heating Units [326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations for Sources of Indirect Heating Facilities Constructed after September 21, 1983), the PM emissions from the following units shall be limited to Pt (pounds per MMBtu heat input), as follows:

Emission Unit	Unit ID	Construction/ Re-construction Date	Pt (lb/MMBtu)
Wood-Fired Boiler	B-1	2007	0.2415
Natural Gas-Fired Boiler	B-2	1998	0.2359
Natural Gas-Fired Boiler	B-3	1998	0.2359
Dual Fuel-Fired Boiler	B-4	1983	0.2453
Dual Fuel-Fired Boiler	B-5	1995	0.2340

- (a) The allowable PM emissions from the one (1) biomass-fired boiler, identified as B-1, shall not exceed 0.247 pound per million British thermal units heat input.
- (b) The allowable PM emissions from the two (2) natural gas fired boilers, identified as B-2 and B-3, shall not exceed 0.254 pound per million British thermal units heat input.
- (c) The allowable PM emissions from the one (1) natural gas and No. 2 fuel oil fired boiler, identified as B-4, shall not exceed 0.425 pound per million British thermal units heat input.

- (d) ~~The allowable PM emissions from the one (1) natural gas and No. 2 fuel oil fired boiler, identified as B-5, shall not exceed 0.335 pound per million British thermal units heat input.~~

These limitations are based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where:

- Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input**~~emission rate limit (lbs/MMBtu); and~~
- Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.**~~total source heat input capacity (MMBtu/hr)~~

**D.1.34 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 7-2-1]**

- (a) Pursuant to 326 IAC 7-1.1 ~~(SO<sub>2</sub> Emission Limitations)~~, the **sulfur dioxide (SO<sub>2</sub>) emissions from the B boilers, identified as B-4 and B-5, each, shall not exceed five tenths (0.5) pounds per MMBtu when using distillate heat input while combusting fuel oil.**
- (b) Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

**D.1.45 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

**A Preventive Maintenance Plan is required for these facilities and any corresponding control devices.** ~~in accordance with Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by,~~ of this **condition**~~permit, is required for the five (5) boilers identified as B-1 through B-5.~~

Compliance Determination Requirements

**D.1.6 Fuel Specifications**

- (a) Pursuant to 326 IAC 2-8-4, compliance with Condition D.1.1(a)(2) - Fuel Specifications for wood chips, shall be determined utilizing one of the following options:
- (a) Providing supplier certification that each wood chip delivery meets the specifications under Condition D.1.1(a)(2); or
- (b) Analyzing a sample of each wood chip delivery to determine if the wood chips meet the specifications under Condition D.1.1(a)(2), utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.
- A determination of noncompliance pursuant to any of the methods specified above shall not be refuted by evidence of compliance pursuant to the other method.
- (b) Pursuant to 326 IAC 2-8-4, compliance with Condition D.1.1(a)(3) - Fuel Specifications for wood chips, shall be determined utilizing one or more of the following options:



- (a) Providing supplier certification that each wood chip delivery meets the specifications under Condition D.1.1(a)(3); or
- (b) Analyzing a sample of each wood chip delivery on-site to determine if the wood chips meet the percent (%) moisture content specifications under Condition D.1.1(a)(3), utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A determination of noncompliance pursuant to any of the methods specified above shall not be refuted by evidence of compliance pursuant to the other method.

#### D.1.79 Sulfur Dioxide (SO<sub>2</sub>) Emissions and Sulfur Content

Compliance with the fuel limitations established in Conditions D.1.1(a)(4) and D.1.3, shall be determined utilizing one of the following options. ~~(a)~~ Pursuant to **326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements) and 326 IAC 3-7-4 (Fuel oil sampling; analysis methods), compliance shall be demonstrated on a thirty (30) day calendar-month average.** the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five tenths (0.5) pound per million Btu heat input by:

- (a4) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
- (b2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19;
  - (1A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
  - (2B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (cb) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from Boilers B-4 and B-5, each, the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (1a) or (2b) above shall not be refuted by evidence of compliance pursuant to the other method.

#### D.1.6 Nitrogen Oxides Emissions

Compliance with the NO<sub>x</sub> emissions limit in Condition D.1.3(a) shall be demonstrated by the summation of twelve (12) consecutive monthly emission rates calculated by the following equation:

$$E_{NOx} = \frac{(CE_{Corn} * Q_{Corn}) + (CE_{SG} * Q_{SG}) + (2.9 * Q_{Bark}) + (7.92 * Q_{Wood}) + (100 * Q_{NG})}{2000 \text{ lbs/ton}}$$

Where:

- $E_{NOx}$  = Emissions of NO<sub>x</sub> in tons per month
- $CE_{Corn}$  = Compliance emission factor for NO<sub>x</sub> shall be 10.2 pounds NO<sub>x</sub> per ton corn until an IDEM approved stack test is conducted. After a stack test is conducted, the emission factor shall be the lb/ton value as established by the stack test
- $Q_{Corn}$  = Corn consumption in tons per month
- $CE_{SG}$  = Compliance emission factor for NO<sub>x</sub> shall be 10.2 pounds NO<sub>x</sub> per ton switchgrass until an IDEM approved stack test is conducted. After a stack test is conducted, the emission factor shall be the lb/ton value as established by the stack test
- $Q_{SG}$  = Switchgrass consumption in tons per month

$Q_{\text{Bark}}$	=	Wood (including bark and clean, untreated construction debris) consumption in tons per month
$Q_{\text{Wood}}$	=	Wood pellets consumption in tons per month
$Q_{\text{NG}}$	=	Natural Gas consumption in MMCF per month

#### D.1.8 Multiple Fuel Usage

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In order to determine compliance with Condition D.1.1(b), when combusting more than one fuel per twelve (12) consecutive month period in Boilers B-1 through B-5, the Permittee shall calculate the combined emissions from Boilers B-1 through B-5, using the following formulas:

(a) Sulfur Dioxide (SO<sub>2</sub>) Emission Calculation

$$S = \frac{[W(E_W)(HHV) + G(E_G) + O(E_O)]}{2,000 \text{ lbs/ton}}$$

where:

S = tons of sulfur dioxide emissions for a 12-month consecutive period;  
W= tons of wood chips (biomass) used in the last 12 months;  
G = million cubic feet of natural gas used in the last 12 months;  
O = gallons of No. 2 fuel oil used in the last 12 months;  
E<sub>W</sub> = 0.025 pounds per million Btu of dry wood;  
E<sub>G</sub> = 0.60 lb/million cubic feet of natural gas;  
E<sub>O</sub> = 0.071 lb/gallon of No. 2 fuel oil; and  
HHV = 17.48 MMBtu/ton of wood, unless different value is determined during the latest stack test.

(b) Nitrogen Oxides (NO<sub>x</sub>) Emission Calculation

$$N = \frac{[W(E_W)(HHV) + G(E_G) + O(E_O)]}{2,000 \text{ lbs/ton}}$$

where:

N = tons of nitrogen oxide emissions for a 12-month consecutive period;  
W= tons of wood chips (biomass) used in the last 12 months;  
G = million cubic feet of natural gas used in the last 12 months;  
O = gallons of No. 2 fuel oil used in the last 12 months;  
E<sub>W</sub> = 0.49 pounds per million Btu of dry wood;  
E<sub>G</sub> = 100 lb/million cubic feet of natural gas;  
E<sub>O</sub> = 0.020 lb/gallon of No. 2 fuel oil; and  
HHV = 17.48 MMBtu/ton of wood, unless different value is determined during the latest stack test.

(c) Carbon Monoxide (CO) Emission Calculation

$$C = \frac{[W(E_W)(HHV) + G(E_G) + O(E_O)]}{2,000 \text{ lbs/ton}}$$

where:

C = tons of carbon monoxide emissions for a 12-month consecutive period;  
W= tons of wood chips (biomass) used in the last 12 months;  
G = million cubic feet of natural gas used in the last 12 months;  
O = gallons of No. 2 fuel oil used in the last 12 months;  
E<sub>W</sub> = 0.60 pounds per million Btu of dry wood;  
E<sub>G</sub> = 84 pounds per million cubic feet of natural gas;  
E<sub>O</sub> = 0.005 pounds per gallon of No. 2 fuel oil; and  
HHV = 17.48 MMBtu/ton of wood, unless different value is determined during the latest stack test.

#### D.1.7 Carbon Monoxide Emissions

Compliance with the CO emissions limit in Condition D.1.3(a) shall be demonstrated by the summation of twelve (12) consecutive monthly emission rates calculated by the following equation:

$$E_{CO} = \frac{(CE_{Corn} * Q_{Corn}) + (CE_{SG} * Q_{SG}) + (7.74 * Q_{Bark}) + (9.48 * Q_{Wood}) + (84 * Q_{NG})}{2000 \text{ lbs/ton}}$$

Where

$E_{CO}$  = Emissions of CO in tons per month

$CE_{Corn}$  = Compliance Emission Factor for CO shall be 8.16 pounds CO per ton Corn until an IDEM approved stack test is conducted. After a stack test is conducted, the emission factor shall be the lb/ton value as established by the stack test

$Q_{Corn}$  = Corn consumption in tons per month.

$CE_{SG}$  = Compliance emission factor for NOx shall be 10.2 pounds NOx per ton switchgrass until an IDEM approved stack test is conducted. After a stack test is conducted, the emission factor shall be the lb/ton value as established by the stack test

$Q_{SG}$  = Switchgrass consumption in tons per month

$Q_{Bark}$  = Wood (including bark and clean, untreated construction debris) consumption in tons per month

$Q_{Wood}$  = Wood pellets consumption in tons per month

$Q_{NG}$  = Natural Gas consumption in MMCF per month

#### D.1.95 Particulate Control (PM/PM10/PM2.5)

In order to comply with Condition D.1.2, the cyclone for particulate control shall be in operation and control emissions from the wood biomass-fired boiler (B-1) at all times that the wood biomass-fired boiler is in operation.

#### D.1.108 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11] [326 IAC 6-2]

In order to demonstrate compliance with Condition D.1.2, the Permittee shall perform PM emissions testing of the cyclone serving Wood-fired Boiler B-1 not later than five (5) years from the most recent valid compliance demonstration, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). A representative sample of the wood fuel shall be collected for each stack test run and analyzed to determine percent (%) moisture content and the higher heating value (HHV) expressed as MMBtu/ton. Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.

(a) Unless the Commissioner determines that valid stack test results from a similar boiler operated by the Indiana Department of Corrections is representative of emissions from Boiler B-1, within one hundred and eighty (180) days after initial usage of untreated corn as a fuel in Boiler B-1 the Permittee shall perform PM, PM10, SO<sub>2</sub>, NOx, CO, VOC, and HCl testing for Boiler B-1 when burning untreated corn utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. If the Commissioner determines that valid stack test results from a similar boiler operated by the Indiana Department of Corrections is not representative of emissions from Boiler B-1, stack tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C– Performance Testing.

(b) Unless the Commissioner determines that valid stack test results from a similar boiler operated by the Indiana Department of Corrections is representative of emissions from Boiler B-1, within one hundred eighty (180) days after initial usage of switchgrass as a fuel in Boiler B-1, the Permittee shall perform PM, PM10, SO<sub>2</sub>, NOx, CO and VOC testing for Boiler B-1 when burning switchgrass utilizing methods as approved by the Commissioner. PM10 includes filterable and condensable PM10. If the Commissioner

~~determines that valid stack test results from a similar boiler operated by the Indiana Department of Corrections is not representative of emissions from Boiler B-1, stack tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.~~

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.1140 Visible Emissions Notations

- (ab) ~~When combusting fuel oil, V~~visible emission notations **from of the wood-fired boiler (boilers, identified as B-1)4 and B-5 stack exhaust (S-B-1)** shall be performed **once per day**daily during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (ba) ~~When combusting biomass, V~~visible emission notations **from each of the dual fuel-fired boilers (Boiler B-4 and B-5)1 stack exhausts (S-B-4 and S-B-5),**exhaust shall be performed **once per day**daily during normal daylight operations **when combusting No. 2 fuel oil**. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) If abnormal emissions are observed, the Permittee shall take reasonable response steps. ~~in accordance with Section C - Response to Excursions or Exceedances~~ **contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An abnormal visible emission notation is not a deviation from this permit.** Failure to take response steps ~~in accordance with Section C - Response to Excursions or Exceedances~~ shall be considered a deviation from this permit.

D.1.1244 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps ~~in accordance with Section C - Response to Excursions or Exceedances~~, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.1342 Record Keeping Requirements

- (a) To document **the compliance status** with Conditions D.1.1, ~~D.1.2 and D.1.34, D.1.6, D.1.7, and D.1.8,~~ the Permittee shall maintain records of the amount of each type of fuel (~~untreated corn, wood (including bark), wood pellets, switchgrass, clean, untreated construction debris, No. 2 distillate fuel oil and natural gas~~) burned in the boilers, as well as the ~~calculated twelve (12) consecutive month NOx and CO emissions~~ in accordance with (1) through (56) below. Records maintained for (1) through (56) **below** shall be taken monthly and shall be complete and sufficient to establish compliance with the SO<sub>2</sub>, NO<sub>x</sub> and CO ~~emission~~ limits established in Conditions D.1.1, ~~D.1.2 and D.1.34, D.1.6, D.1.7, and D.1.8.~~

- (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil usage, **sulfur content, heat content, and equivalent sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO) emission rates for each fuel combusted in Boilers B-1 through B-5 since the last compliance determination period and equivalent sulfur dioxide emissions;**
  - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted **in Boilers B-1 through B-5 during the period;** during the period. ~~The natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and~~
  - (4) If the fuel supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:
    - (A4) Fuel supplier certifications;
    - (B5) The name of the fuel supplier; and
    - (C6) A statement from the fuel supplier that certifies the sulfur content of the **No. 2** fuel oil.
  - (5) **Wood chip analysis results or wood supplier certification(s) that demonstrate that the wood chips meets the specifications under Conditions D.1.1(a)(2) and D.1.1(a)(3). If the wood supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:**
    - (A) **Wood supplier certifications;**
    - (B) **The name of the wood supplier; and**
    - (C) **A statement from the wood supplier that certifies that the wood chips meets the specifications under Condition D.1.1(a)(2) and D.1.1(a)(3).**
- ~~(b) Pursuant to 326 IAC 12, the Permittee shall maintain daily records of the amount and type of fuel combusted by the boilers. This condition expires when the transitions made to 40 CFR 60, Subpart Dc as amended on February 27, 2006, becomes an Indiana law. This condition is not federally enforceable.~~
- (be) To document **the compliance status** with Condition D.1.1140(a), the Permittee shall maintain records **once per day** of the visible emission notations of **the wood-fired boiler (Boilers B-1), B-4, and B-5 stack exhaust (S-B-1) exhausts while combusting fuel oil and biomass.** The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (~~(i.e. g.,~~ the process did not operate that day).
  - (c) **To document the compliance status with Condition D.1.11(b), the Permittee shall maintain records once per day of the visible emission notations of each of the dual fuel-fired boilers (B-4 and B-5) stack exhausts (S-B-4 and S-B-5). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day, or the boiler did not burn fuel oil that day).**
  - (d) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit~~ **contains the Permittee's obligations with regard to the records required by this condition.**

### D.1.13 Reporting Requirements

~~(a) A Quarterly summary of the information to document the compliance status with Conditions D.1.1(b) and D.1.8, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, not later than within thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee does require the 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)).~~

~~(b) The Permittee shall certify, on the form provided, that natural gas was fired in the boiler at all times during each quarter. Alternatively, the Permittee shall report the number of days during which an alternate fuel was burned during each quarter.~~

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

#### D.1.14 General Provisions Relating to New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units [326 IAC 12-1][40 CFR Part 60, Subpart A] [40 CFR Part 60, Subpart Dc]

~~Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1-1 for the for the boilers (B-1 and B-5) as specified in Appendix A of 40 CFR Part 60, in accordance with the schedule in 40 CFR 60, Subpart Dc.~~

#### D.1.15 New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc]

~~Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart Dc, which are incorporated by reference as 326 IAC 12-1 for the boilers (B-1 and B-5) as specified as follows:~~

##### ~~§ 60.40c - Applicability and delegation of authority.~~

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

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

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

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

##### ~~§ 60.41c - Definitions.~~

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

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

~~combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.~~

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

~~§ 60.42c—Standard for sulfur dioxide.~~

~~(d) On and after the date on which the initial performance test is completed or required to be completed under Sec. 60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil~~



shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

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

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

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

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

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

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

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

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

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

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

#### ~~§ 60.46c—Emission monitoring for sulfur dioxide~~

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

~~§ 60.48c—Reporting and recordkeeping requirements.~~

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

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

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

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

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

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

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

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

~~(1) Calendar dates covered in the reporting period.~~

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

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

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

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

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

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

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

(1) For distillate oil:

(i) The name of the oil supplier;

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

(iii) The sulfur content of the oil.

g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in Sec. 60.48c(f) to demonstrate compliance with the SO<sub>2</sub> standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

\* \* \* \* \*

## SECTION D.2

## EMISSIONS UNIT FACILITY OPERATION CONDITIONS

### Emissions Unit Facility Description [326 IAC 2-8-4(10)]: **Material Handling Operations**

- (f) One (1) **wood chip** biomass-handling and storage operation, **identified as IR-WCHS, constructed** approved for construction in 2007, and modified in 2008, and consisting of the following:
- (1) One (1) truck unloading operation with a maximum throughput of **18,400**~~224,000~~ pounds of **wood chips** biomass-per hour.
  - (2) One (1) **wood chip** biomass-storage silo, with a maximum storage capacity of **220,000**~~762,552~~ pounds of **wood chips** biomass (volumetric capacity **10,598**~~15,987~~ cubic feet), with emissions controlled by a baghouse.
  - (3) One (1) **wood chip** biomass-handling system with a maximum throughput of **325**~~2,000~~ pounds of **wood chips** per hour, with emissions controlled by a baghouse, including: **six** ~~(6) five (5)~~ augers, one (1) conveyor, one (1) bucket elevator, and one (1) metering bin.
- (g) ~~One (1) ash disposal system, approved for construction in 2007, with a maximum throughput of 500 pounds of ash per hour, with emissions controlled by a cyclone including: three (3) augers.~~

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

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 Particulate **Emission Limitations, For Manufacturing Processes** [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), the allowable particulate emissions rate from each process shall be limited by using either of the **units in the wood chip handling and storage operation (IR-**

**WCHS), shall not exceed the corresponding pound per hour limitations listed in the table below following equations:**

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:

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

or

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

$$E = 55.0 P^{0.11} - 40 \text{ where } E = \text{rate of emission in pounds per hour and } P = \text{process weight rate in tons per hour}$$

The following table shows the maximum process weight rate and allowable particulate emission rate for each emission unit:

Emission Unit	Process Weight Rate		326 IAC 6-3 Allowable Particulate Emission Rate Limit (lbs/hour)
	(lbs/hr)	(tons/hr)	
Truck Unloading Operation	18,400.0	9.2112	18.1452.4
<b>Storage Silo</b>	<b>220,000.0</b>	<b>110.0</b>	<b>52.24</b>
Biomass Handling System	----	126	53.6
Ash handling System	----	0.25	1.62

These limitations are based on the following equations:

- (a) 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:

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

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

$$E = 55.0 P^{0.11} - 40 \text{ where } E = \text{rate of emission in pounds per hour; and } P = \text{process weight rate in tons per hour}$$

~~D.2.2 PM<sub>10</sub> Limitations [326 IAC 2-8-4]~~

~~The PM<sub>10</sub> emissions from the baghouse controlling the emissions from biomass handling operations shall not exceed 10.81 pounds per hour. Compliance with this limit, combined with the PM<sub>10</sub> emissions from the other emission units at this source shall limit the source-wide potential to emit PM<sub>10</sub> to less than 100 tons per twelve (12) consecutive month period, and render 326 IAC 2-7 (Part 70 Program) not applicable.~~

~~D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]~~

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

Compliance Determination Requirements

#### D.2.4 Particulate Control

- ~~(a) In order to comply with Condition D.2.2, the biomass handling operation shall be controlled by a baghouse when these units are in operation.~~
- ~~(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.~~

#### Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

#### D.2.5 Visible Emissions Notations

- ~~(a) Visible emission notations of the baghouse stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.~~
- ~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eight percent (80%) of the time the process is in operation, not counting startup or shutdown time.~~
- ~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~
- ~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~
- ~~(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

#### D.2.6 Parametric Monitoring

- ~~(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the biomass handling operations at least once per day when these units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 to 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.~~
- ~~(b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.~~

#### D.2.7 Broken or Failed Bag Detection

- ~~(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~
- ~~(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or~~

~~replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B – Emergency Provisions).~~

~~Bag failure can be a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.~~

~~Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]~~

~~D.2.8 Record Keeping Requirements~~

- ~~(a) To document compliance with D.2.5, the Permittee shall maintain records of daily visible emission notations of the baghouse stack exhausts. The Permittee shall include its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).~~
- ~~(b) To document compliance with D.2.6, the Permittee shall maintain daily records of pressure drop for baghouses during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).~~
- ~~(c) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit.~~

\*\*\*\*\*

**SECTION D.3**

**EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Autobody Refinishing Operations**

- (h) One (1) autobody refinishing operation, identified as IR-ARO, constructed in 1961, using airless spray application methods to apply a maximum of 0.04 gallons of coatings per hour, and 3.08 gallons per day, to metal automobile bodies, uncontrolled, and exhausting inside the building;**

**Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected autobody refinishing operation.**

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

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

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

**Pursuant to 326 IAC 8-10-4, for refinishing operations subject to the requirements of 326 IAC 8-10, the Permittee shall comply with the following:**

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

**The VOC content shall not exceed the following limits:**

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

**For surface preparation products:**

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

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

**D.3.2 Work Practice Standards [326 IAC 8-10-3] [326 IAC 8-10-5]**

For refinishing operations subject to the requirements of 326 IAC 8-10, the Permittee shall comply with the work practice standards contained in 326 IAC 8-10-5 (included as Attachment E of this permit).

**D.3.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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

**Compliance Determination Requirements**

**D.3.4 Volatile Organic Compounds (VOC) [326 IAC 8-10-3] [326 IAC 8-10-7] [326 IAC 8-1-4]**

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

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16] [326 IAC 8-10-3] [326 IAC 8-10-5(d)(4)] [326 IAC 8-10-6(c)] [326 IAC 8-10-9]**

**D.3.5 Record Keeping Requirements [326 IAC 8-10-3] [326 IAC 8-10-5(d)(4)] [326 IAC 8-10-9]**

- (a) For refinishing operations subject to the requirements of 326 IAC 8-10, the Permittee shall comply with the record keeping requirements contained in 326 IAC 8-10-9 (included as Attachment E of this permit).

- (b) To document the compliance status with Conditions D.3.1(a), and D.3.4, the Permittee shall keep the following records for the automobile refinishing operation:
- (1) Purchase orders and invoices for each solvent containing material;
  - (2) Number of gallons of each solvent containing material used;
  - (3) VOC content (pounds/gallon) of each solvent containing material used;
  - (4) Amount of waste VOC manifested off-site; and
  - (5) Summation on a monthly basis of emissions of VOC.
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

**D.3.6 Reporting Requirements [326 IAC 8-10-3] [326 IAC 8-10-6(c)] [326 IAC 8-10-9(e)]**

For refinishing operations subject to the requirements of 326 IAC 8-10, the Permittee shall comply with the reporting requirements contained in 326 IAC 8-10-6(c) and 326 IAC 8-10-9(e) (included as Attachment E of this permit). These reports shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

\* \* \* \* \*

**SECTION D.43 EMISSIONS UNIT/FACILITY OPERATION CONDITIONS**

**Emissions Unit/Facility Description [326 IAC 2-8-4(10)]: Degreasing Operations**

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6, **including five (5) cold cleaner degreaser units, collectively identified as the Parts Washers, constructed after July 1, 1990;** [~~;(326 IAC 8-3-2) [(326 IAC 8-3-8)5]~~]
- (d) ~~The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment; (326 IAC 6-3-2)~~
- (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.3.1 Particulate (PM) [326 IAC 6-3-2]**

~~Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the brazing, cutting, soldering, and welding, operations shall not exceed the allowable PM emission rate based on the following equation:~~

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

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

**D.4.13.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]**

**Pursuant to The insignificant degreasing operations are subject to the provisions of 326 IAC 8-3-2 (Organic solvent degreasing operations: Cold cleaner degreaser control equipment and operating requirements):**



- (a) **The Permittee** ~~operations~~). Pursuant to this rule, the owner or operator shall **ensure the following control equipment and operating requirements are met:**
- (1a) Equip the ~~degreaser~~ ~~cleaner~~ with a cover.;
  - (2b) Equip the ~~degreaser~~ ~~cleaner~~ with a ~~device~~ ~~facility~~ for draining cleaned parts.;
  - (3e) Close the degreaser cover whenever parts are not being handled in the ~~degreaser~~. ~~cleaner~~;
  - (4d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases. ;
  - (5e) Provide a permanent, conspicuous label **that lists** ~~summarizing~~ the operating requirements **in (a)(3), (a)(4), (a)(6), and (a)(7) of this condition.**;
  - (6f) Store waste solvent only in ~~closed~~ ~~covered~~ containers.
  - (7) **Prohibit the disposal or transfer** ~~and not dispose~~ of waste solvent or ~~transfer it to another party~~, in such a manner that **could allow** greater than twenty percent (20%) of the waste solvent (by weight) ~~to~~ ~~can~~ evaporate into the atmosphere.

~~D.3.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]~~

- ~~(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator~~
- (b) **The Permittee** shall ensure that the following **additional control equipment and operating** requirements are met:
- (1) Equip the degreaser with **one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):**
    - (A) **A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.**
    - (B) **A water a-cover when solvent used is insoluble in, and heavier than, water.**
    - (C) **A refrigerated chiller.**
    - (D) **Carbon adsorption.**
    - (E) **An alternative system of demonstrated equivalent or better control as those outlined in (b)(1)(A) through (D) of this condition that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.**
  - (2) **Ensure the degreaser** ~~The cover is~~ ~~must be~~ designed so that it can be easily operated with one (1) hand if:
    - ~~(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));~~
    - ~~(B) The solvent is agitated; or~~
    - ~~(C) The solvent is heated.~~

- (2) ~~Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.~~
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) ~~If used,~~ The solvent spray:
    - (A) ~~, if used,~~ must be a solid, fluid stream; and
    - (B) shall be applied at a pressure ~~that~~which does not cause excessive splashing.
  - (5) ~~Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):~~
    - (A) ~~A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.~~
    - (B) ~~A water cover when solvent is used is insoluble in, and heavier than, water.~~
    - (C) ~~Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.~~
- (b) ~~Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:~~
- (1) ~~Close the cover whenever articles are not being handled in the degreaser.~~
  - (2) ~~Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.~~
  - (3) ~~Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.~~

#### **D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-8]**

---

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), on and after January 1, 2015, the Permittee shall not operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure than exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

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

##### **D.4.3 Record Keeping Requirement [326 IAC 8-3-8]**

- 
- (a) Pursuant to 326 IAC 8-3-8(c)(2), on and after January 1, 2015, the following records shall be maintained for each purchase of cold cleaner degreaser solvent:

- (1) The name and address of the solvent supplier.
  - (2) The date of purchase (or invoice/bill dates of contract servicer indicating service date).
  - (3) The type of solvent purchased.
  - (4) The total volume of the solvent purchased.
  - (5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) All records required by 326 IAC 8-3-8(c)(2) shall be:
- (1) retained on-site or accessible electronically from the site for the most recent three (3) year period; and
  - (2) reasonably accessible for an additional two (2) year period.

\* \* \* \* \*

**SECTION D.5**

**EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Insignificant Boilers & Hot Water Heaters**

***Pendleton Correctional Facility (IR)***

- (e) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
- (6) One (1) natural gas-fired hot water heater, identified as B-29, constructed in 1985, with a maximum heat input capacity of 0.075 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]

***Pendleton Juvenile Correctional Facility (PJCF)***

- (k) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including the following:
- (1) Two (2) natural gas-fired hot water boilers, identified as B-6 and B-7, constructed in 2000, with a maximum heat input capacity of 1.44 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (2) Eight (8) natural gas-fired boilers, identified as B-8 through B-15, constructed in 2000, with a maximum heat input capacity of 0.25 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (3) Two (2) natural gas-fired boilers, identified as B-16 and B-17, constructed in 2000, with a maximum heat input capacity of 1.44 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (4) Two (2) natural gas-fired hot water boilers, identified as B-18 and B-19, constructed in 2000, with a maximum heat input capacity of 0.5 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
  - (5) Six (6) natural gas-fired hot water heaters, identified as B-30 and B-32 through B-36, constructed in 2000, with a maximum heat input capacity of 1.26 MMBtu/hr, each, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]

- (6) One (1) natural gas-fired hot water heater, identified as B-31, constructed in 2000, with a maximum heat input capacity of 0.99 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (7) One (1) natural gas-fired hot water heater, identified as B-37, constructed in 2000, with a maximum heat input capacity of 1.8 MMBtu/hr, uncontrolled, and exhausting to the atmosphere; [326 IAC 6-2]
- (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.5.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2]**

Pursuant to 326 6-2-1(d), particulate emissions from the combustion of fuel for indirect heating from all facilities receiving permits to construct on or after September 21, 1983, shall be limited by section 326 IAC 6-2-4. Therefore, pursuant to 326 IAC 6-2-4, PM emissions from the indirect heating units listed in the table below shall not exceed the corresponding pounds per MMBtu (lb/MMBtu) heat input limitations:

Emission Unit	Unit ID	Pt (lb/MMBtu)
PJCF: Services: Hot Water Boiler 1	B-6	0.2328
PJCF: Services: Hot Water Boiler 2	B-7	0.2328
PJCF: Building A: Boiler 1	B-8	0.2328
PJCF: Building A: Boiler 2	B-9	0.2328
PJCF: Building B: Boiler 1	B-10	0.2328
PJCF: Building B: Boiler 2	B-11	0.2328
PJCF: Building C: Boiler 1	B-12	0.2328
PJCF: Building C: Boiler 2	B-13	0.2328
PJCF: Building E: Boiler 1	B-14	0.2328
PJCF: Building E: Boiler 2	B-15	0.2328
PJCF: Programs: Boiler 1	B-16	0.2328
PJCF: Programs: Boiler 2	B-17	0.2328
PJCF: Administration: Hot Water Boiler 1	B-18	0.2328
PJCF: Administration: Hot Water Boiler 2	B-19	0.2328
IR: Garage: Water Heater 1	B-29	0.2328
PJCF: Services: Kitchen Hot Water Heater	B-30	0.2328
PJCF: Services: Med & Sleep Hot Water Heater	B-31	0.2328
PJCF: Services: Laundry Hot Water Heater	B-32	0.2328
PJCF: Building A: Water Heater 1	B-33	0.2328
PJCF: Building B: Water Heater 1	B-34	0.2328
PJCF: Building C: Water Heater 1	B-35	0.2328
PJCF: Building E: Water Heater 1	B-36	0.2328
PJCF: Programs: Water Heater 1	B-37	0.2328

These limitations are based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input; and

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as

the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

\* \* \* \* \*

**SECTION E.1**

**NSPS REQUIREMENTS**

**Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Indirect Heating Units (Boilers)**

- (a) One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

- (e) One (1) dual fuel-fired boiler, identified as Boiler B-5, constructed in 1995, with a maximum heat input capacity of 61.89 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-5.

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

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

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]**

**E.1.1 General Provisions Relating to New Source Performance Standards (NSPS) Requirements under 40 CFR Part 60 [326 IAC 12-1][40 CFR 60, Subpart A]**

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, except as otherwise specified in 40 CFR 60, Subpart Dc.

- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

and

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

**E.1.2 New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60, Subpart Dc] [326 IAC 12]**

The Permittee shall comply with the provisions of 40 CFR 60, Subpart Dc (included as Attachment A of this permit), which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR 60, Subpart Dc, for the steam generating units identified in the Emissions Unit Descriptions box above, as follows:

- (a) The wood-fired boiler (B-1), as follows:
  - (1) 40 CFR 60.40c (a), (b), (c), (d);
  - (2) 40 CFR 60.41c; and
  - (3) 40 CFR 60.48c(a)(1), (a)(3), (g), and (i);
  
- (b) The dual fuel-fired boiler (B-5), when combusting No. 2 fuel oil, as follows:
  - (1) 40 CFR 60.40c (a), (b), (c), and (d);
  - (2) 40 CFR 60.41c;
  - (3) 40 CFR 60.42c(d), (g), (h)(1), and (i);
  - (4) 40 CFR 60.43c(c);
  - (5) 40 CFR 60.44c (a), (b), (d), (g), and (h);
  - (6) 40 CFR 60.46c(e); and
  - (7) 40 CFR 60.48c(a)(1), (a)(2), (a)(3), (a)(4), (b), (c), (d), (e)(1), (e)(2), (e)(3), (e)(4), (e)(5), (e)(6), (e)(11), (f)(1)(i), (f)(1)(ii), (f)(1)(iii), (g)(1), (g)(2), (g)(3), and (j).

\* \* \* \* \*

**SECTION E.2**

**NESHAP REQUIREMENTS**

**Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Boilers**

- (a) One (1) wood-fired boiler system, including one (1) boiler, identified as Boiler B-1, constructed in 1961 as a coal-fired boiler, retrofitted in 1998 to burn natural gas only, modified in 2007 to combust untreated corn (biomass) only, approved in 2008 to combust wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris, and approved in 2014 to combust only clean, dry, untreated wood chips, with a maximum heat input capacity of 29.18 million British thermal units per hour, controlled by one (1) cyclone, and exhausting to stack S-B-1;  
  
Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.
  
- (d) One (1) dual fuel-fired boiler, identified as Boiler B-4, constructed in 1983, with a maximum heat input capacity of 41.00 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-4.  
  
Under 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.
  
- (e) One (1) dual fuel-fired boiler, identified as Boiler B-5, constructed in 1995, with a maximum heat input capacity of 61.89 million British thermal units per hour, combusting natural gas, or No. 2 fuel oil as available, uncontrolled, and exhausting to stack S-B-5.

Under 40 CFR 60, Subpart Dc, New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, and 40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, this boiler is considered an affected facility.

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

**National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements [326 IAC 2-8-4(1)]**

**E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A] [326 IAC 20-1]**

(a) Pursuant to §63.11130, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 8 of 40 CFR Part 63, Subpart JJJJJJ, and in accordance with the schedule in 40 CFR 63 Subpart JJJJJJ.

(b) Pursuant to 40 CFR 63.12, the Permittee shall submit all required notifications and reports to:

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

and

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

**E.2.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs): Area Source Standards for Industrial, Commercial, and Institutional Boilers Area Sources [40 CFR 63, Subpart JJJJJJ]**

Pursuant to 40 CFR 63, Subpart JJJJJJ, the Permittee shall comply with the provisions of 40 CFR 63, Subpart JJJJJJ (6J) (included as Attachment B of this permit), for the boilers identified in the Emissions Unit Descriptions box above, with compliance dates of January 20, 2014 (*initial notification*) and March 21, 2014 (*energy assessment and tune-up*), as follows:

- |     |                                    |     |   |
|-----|------------------------------------|-----|---|
| (A) | 40 CFR 63.11193;                   | (I) | 40 CFR 63.11223(a),(b);   |
| (B) | 40 CFR 63.11194(a)(1),(b),(e),(f); | (J) | 40 CFR 63.11225(a)(1),(a)(2),(a)(4),(b)(1),<br>(b)(2),(b)(3),(c)(1),(c)(2),<br>(c)(4),(c)(5),(d),(g); |
| (C) | 40 CFR 63.11196(a)(1),(a)(3);      |     |   |
| (D) | 40 CFR 63.11200;                   | (K) | 40 CFR 63.11235;  |
| (E) | 40 CFR 63.11201(b),(d);            | (L) | 40 CFR 63.11236;  |
| (F) | 40 CFR 63.11205(a);                | (M) | 40 CFR 63.11237;  |
| (G) | 40 CFR 63.11210(c),(h);            | (N) | Table 2; and  |
| (H) | 40 CFR 63.11214(b),(c);            | (O) | Table 8   |

\* \* \* \* \*

**SECTION E.3**

**NESHAP REQUIREMENTS**

**Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Autobody Refinishing Operation**

- (h) One (1) autobody refinishing operation, identified as IR-ARO, constructed in 1961, using airless spray application methods to apply a maximum of 0.04 gallons of coatings per hour to metal automobile bodies, uncontrolled, and exhausting inside the building;

Under 40 CFR 63, Subpart HHHHHH - National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, this is considered an affected autobody refinishing operation.

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

**National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements [326 IAC 2-8-4(1)]**

**E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A] [326 IAC 20-1]**

- (a) Pursuant to §63.11130, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 1 of 40 CFR Part 63, Subpart HHHHHH, and in accordance with the schedule in 40 CFR 63 Subpart HHHHHH.
- (b) Pursuant to 40 CFR 63.12, the Permittee shall submit all required notifications and reports to:

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

and

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

**E.3.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources [40 CFR 63, Subpart HHHHHH]**

Pursuant to 40 CFR 63, Subpart HHHHHH, the Permittee shall comply with the provisions of 40 CFR 63, Subpart HHHHHH (6H) (included as Attachment C of this permit) for the autobody refinishing operation identified in the Emissions Unit Descriptions box above, with an initial compliance date of January 10, 2011, as follows:

- |     |                             |     |   |
|-----|-----------------------------|-----|---|
| (A) | 40 CFR 63.11169(b);         | (H) | 40 CFR 63.11176(a);                     |
| (B) | 40 CFR 63.11170(a)(2),(b);  | (I) | 40 CFR 63.11177(a),(b),(c),(d),(g),(h); |
| (C) | 40 CFR 63.11171(a),(b),(e); | (J) | 40 CFR 63.11178;                        |
| (D) | 40 CFR 63.11172(b);         | (K) | 40 CFR 63.11179; and                    |
| (E) | 40 CFR 63.11173(e),(g);     | (L) | 40 CFR 63.11180;                        |
| (F) | 40 CFR 63.11174;            | (M) | Table 1.                                |
| (G) | 40 CFR 63.11175;            |     |   |

\* \* \* \* \*



**SECTION E.4**

**NESHAP REQUIREMENTS**

**Emissions Unit Descriptions [326 IAC 2-8-4(10)]: Gasoline Dispensing Facilities (GDF)**

***Pendleton Correctional Facility (IR)***

- (c) A gasoline fuel transfer and dispensing operation, identified as IR-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 100 gallon moveable gasoline transfer tank, identified as IR-AST1, constructed in 1983, uncontrolled, and venting to the atmosphere;

Under 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, the gasoline fuel transfer and dispensing operation is considered an affected facility.

***Correctional Industrial Facility (CIF)***

- (h) A fuel dispensing station, consisting of:

- (1) A gasoline fuel transfer and dispensing operation, identified as CIF-GDF, handling less than or equal to 20.4 gallons per day, for filling tanks and/or automobiles, and including one (1) 5,000 gallon aboveground gasoline storage tank, identified as CIF-AST1, constructed in 2014, uncontrolled and venting to the atmosphere;

Under 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, the gasoline fuel transfer and dispensing operation is considered an affected facility.

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

**National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements [326 IAC 2-8-4(1)]**

**E.4.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [40 CFR Part 63, Subpart A] [326 IAC 20-1]**

- (a) Pursuant to 40 CFR 63.11130, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, as specified in Table 3 of 40 CFR Part 63, Subpart CCCCCC in accordance with schedule in 40 CFR 63 Subpart CCCCCC

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

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

and

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

**E.4.2 National Emissions Standards for Hazardous Air Pollutants for Source Category Gasoline Dispensing Facilities [40 CFR Part 63, Subpart CCCCCC]**

Pursuant to 40 CFR Part 63, Subpart CCCCCC, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart CCCCCC (6C) (included as Attachment D of this permit) for the gasoline fuel transfer and dispensing operations identified in the Emissions Unit Descriptions box above, beginning on January 10, 2011, as follows:

- |     |                                    |      |                      |
|-----|------------------------------------|------|----------------------|
| (1) | 40 CFR 63.11110                    | (8)  | 40 CFR 63.11125(d);  |
| (2) | 40 CFR 63.11111(a), (b), (e), (f); | (9)  | 40 CFR 63.11126(b);  |
| (3) | 40 CFR 63.11112(a), (d);           | (10) | 40 CFR 63.11130;     |
| (4) | 40 CFR 63.11113(b), (c);           | (11) | 40 CFR 63.11131;     |
| (5) | 40 CFR 63.11115;                   | (12) | 40 CFR 63.11132; and |
| (6) | 40 CFR 63.11116;                   | (13) | Table 3              |
| (7) | 40 CFR 63.11124;                   |      |                      |

\* \* \* \* \*

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

~~FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION~~

Source Name: ~~\_\_\_\_\_ Pendleton Correctional Facility~~  
Source Address: ~~\_\_\_\_\_ 4490 West Reformatory Road, Pendleton, IN 46064~~  
Mailing Address: ~~\_\_\_\_\_ 4490 West Reformatory Road, Pendleton, IN 46064~~  
FESOP No.: ~~\_\_\_\_\_ F095-16603-00006~~

<input type="checkbox"/> Natural Gas Only <input type="checkbox"/> Alternate Fuel burned From: _____ To: _____
--

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature: _____
Printed Name: _____
Title/Position: _____
Date: _____

Attach a signed certification to complete this report.

\* \* \* \* \*

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

**FESOP Quarterly Report**

**Page 1 of 2**

**Source Name:** Pendleton Correctional Facility  
**Source Address:** 4490 W. Reformatory Road, Pendleton, Indiana 46064  
**FESOP Permit No.:** F095-32852-00006  
**Facility:** Boilers B-1 through B-5, combined.  
**Parameter:** Fuel Usage / SO<sub>2</sub>, NO<sub>x</sub>, and CO emissions  
**Emission Limits:** Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 92.26 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.8(a).  
Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 49.36 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.8(b).  
Carbon Monoxide (CO) emissions shall not exceed 81.50 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the equation found in Condition D.1.8(c).

**FESOP Quarterly Report - Fuel Usage / SO<sub>2</sub>, NO<sub>x</sub>, CO, & CO<sub>2</sub>e emissions**

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

Month	Fuel Types (units)	Column 1	Column 2	Column 1 + Column 2	Equation Results		
		Usage This Month	Usage Previous 11 Months	Usage 12 Month Total	Sulfur Dioxide (SO <sub>2</sub> ) Emissions (tons per 12 months)	Nitrogen Oxides (NO <sub>x</sub> ) Emissions (tons per 12 months)	Carbon Monoxide (CO) Emissions (tons per 12 months)
	Wood chips (tons)						
	Natural Gas (million cubic feet)						
	No. 2 Fuel Oil (gallons)						
	Wood chips (tons)						
	Natural Gas (million cubic feet)						
	No. 2 Fuel Oil (gallons)						
	Wood chips (tons)						
	Natural Gas (million cubic feet)						
	No. 2 Fuel Oil (gallons)						

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

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

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

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

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

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

\*\*\*\*\*

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

~~FESOP Quarterly Report~~

Source Name: \_\_\_\_\_ Pendleton Correctional Facility  
Source Address: \_\_\_\_\_ 4490 West Reformatory Road, Pendleton, IN 46064  
Mailing Address: \_\_\_\_\_ 4490 West Reformatory Road, Pendleton, IN 46064  
FESOP No.: \_\_\_\_\_ F095-16603-00006  
Facility: \_\_\_\_\_ Two (2) natural gas and No. 2 fuel oil boilers, identified as boiler B-4 and B-5  
Parameter: \_\_\_\_\_ Kilo Gallons of No. 2 fuel oil burned  
Limit: \_\_\_\_\_ 500 kilo gallons of No. 2 distillate fuel oil or equivalent fuel per twelve (12)  
consecutive month period, with compliance determined at the end of each month.

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

Month	Kilo Gallons of No. 2 fuel oil burned	Kilo Gallons of No. 2 fuel oil burned	Kilo Gallons of No. 2 fuel oil burned
	This Month	Previous 11 Months	12 Month Total

\_\_\_\_\_  No deviation occurred in this quarter.

\_\_\_\_\_  Deviation/s occurred in this quarter.

\_\_\_\_\_ Deviation has been reported on: \_\_\_\_\_

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

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

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

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

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

Attach a signed certification to complete this report.

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

**FESOP Quarterly Report**

Source Name:            Pendleton Correctional Facility  
 Source Address:            4490 West Reformatory Road, Pendleton, IN 46064  
 Mailing Address:            4490 West Reformatory Road, Pendleton, IN 46064  
 FESOP No.:            F095-16603-00006  
 Facility:            Boilers B-1 through B-5  
 Parameter:            Biomass or equivalent fuel usage  
 Limit:            (a) The total amount of fuel (untreated corn, wood (including bark), wood pellets, switchgrass, clean, untreated construction debris and natural gas) burned by Boiler #1, Boiler # 2, Boiler # 3, Boiler # 4 shall be limited such that NOx emissions shall not exceed 90.3 tons per twelve (12) consecutive month period with compliance determined at the end of each month based on the following equation.  
           (b) The total amount of fuel (untreated corn, wood (including bark), wood pellets, switchgrass, clean, untreated construction debris and natural gas) burned by Boiler #1, Boiler # 2, Boiler # 3, Boiler # 4 shall be limited such that CO emissions shall not exceed 97.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month based on the following equation.

$$E_{NOx} = \frac{(CE_{Corn} * Q_{Corn}) + (CE_{SG} * Q_{SG}) + (2.9 * Q_{Bark}) + (7.92 * Q_{Wood}) + (100 * Q_{NG})}{2000 \text{ lbs/ton}}$$

Where:

- $E_{NOx}$  = Emissions of NOx in tons per month
- $CE_{Corn}$  = Compliance emission factor for NOx shall be 10.2 pounds NOx per ton corn until an IDEM approved stack test is conducted. After a stack test is conducted, the emission factor shall be the lb/ton value as established by the stack test
- $Q_{Corn}$  = Corn consumption in tons per month
- $CE_{SG}$  = Compliance emission factor for NOx shall be 10.2 pounds NOx per ton switchgrass until an IDEM approved stack test is conducted. After a stack test is conducted, the emission factor shall be the lb/ton value as established by the stack test
- $Q_{SG}$  = Switchgrass consumption in tons per month
- $Q_{Bark}$  = Wood (including bark and clean, untreated construction debris) consumption in tons per month
- $Q_{Wood}$  = Wood pellets consumption in tons per month
- $Q_{NG}$  = Natural Gas consumption in MMCF per month

$$E_{CO} = \frac{(CE_{Corn} * Q_{Corn}) + (CE_{SG} * Q_{SG}) + (7.71 * Q_{Bark}) + (9.48 * Q_{Wood}) + (84 * Q_{NG})}{2000 \text{ lbs/ton}}$$

Where:

- $E_{CO}$  = Emissions of CO in tons per month
- $CE_{Corn}$  = Compliance Emission Factor for CO shall be 8.16 pounds CO per ton Corn until an IDEM approved stack test is conducted. After a stack test is conducted, the emission factor shall be the lb/ton value as established by the stack test
- $Q_{Corn}$  = Corn consumption in tons per month.
- $CE_{SG}$  = Compliance emission factor for NOx shall be 10.2 pounds NOx per ton switchgrass until an IDEM approved stack test is conducted. After a stack test is conducted, the emission factor shall be the lb/ton value as established by the stack test
- $Q_{SG}$  = Switchgrass consumption in tons per month
- $Q_{Bark}$  = Wood (including bark and clean, untreated construction debris) consumption in tons per month
- $Q_{Wood}$  = Wood pellets consumption in tons per month
- $Q_{NG}$  = Natural Gas consumption in MMCF per month

This FESOP Quarterly Report consists of 2 pages.

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

Month	NOx Emissions	NOx Emissions	NOx Emissions
	This Month	Previous 11 Months	12 Month Total

Month	CO Emissions	CO Emissions	CO Emissions
	This Month	Previous 11 Months	12 Month Total

\_\_\_\_\_  No deviation occurred in this quarter.

\_\_\_\_\_  Deviation/s occurred in this quarter.

\_\_\_\_\_ Deviation has been reported on: \_\_\_\_\_

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

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

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

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

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

Attach a signed certification to complete this report.

\* \* \* \* \*

### Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the applications and additional information submitted by the applicant. The applications for the purposes of this review were received on July 03, 2012, February 21, 2013, and July 28, 2014.

The operation of this existing stationary correctional institution shall be subject to the conditions of the attached FESOP Renewal No. F095-32852-00006. The staff recommends to the Commissioner that the FESOP Renewal be approved.

### IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Ms. Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-9327 or toll free at 1-800-451-6027 extension 3-9327.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.in.gov/idem](http://www.in.gov/idem)



**Appendix A.1: Unlimited Emissions Calculations**  
**Entire Source Emission Summary**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

		Uncontrolled Potential Emissions (tons/year)																		
		Emissions Generating Activity																		
Category	Pollutant	Pendleton Correctional Facility (IR)										Correctional Industrial Facility (CIF)						Pendleton Juvenile Correctional Facility (PJCF)		TOTAL
		Boiler (B-1)	Boilers (B-2 & B-3)	Boilers (B-4 & B-5)	Wood Chips and Ash Handling (mult.)	Diesel-fired Emergency Generator (G-1)	Autobody Refinishing Operation (IR-ARO)	Cold Cleaner Degreaser Units (Parts Washers)	Gasoline Dispensing Facility (IR-GDF)	Welding (mult.)	Insignificant Natural Gas Combustion Units	Diesel-fired Emergency Generators (G-2 & G-3)	Gasoline Dispensing Facility (CIF-GDF)	Welding (mult.)	Grinding (mult.)	CNC Machining (Coolant)	Insignificant Natural Gas Combustion Units	Diesel-fired Emergency Generator (G-4)	Insignificant Natural Gas Combustion Units	
Criteria Pollutants	PM	51.13	1.45	6.44	22.11	0.51	0.37	0	0	0.33	0.01	0.31	0	0.40	0.03	0	0.02	0.33	0.16	83.60
	PM10	48.19	5.81	7.66	8.05	0.29	0.37	0	0	0.33	0.03	0.18	0	0.40	0.01	0	0.09	0.19	0.64	72.24
	PM2.5	41.80	5.81	7.66	8.05	0.29	0.37	0	0	0.33	0.03	0.18	0	0.40	0.01	0	0.09	0.19	0.64	65.85
	SO2	3.20	0.46	228.54	0	2.95	0	0	0	0	2.49E-03	1.80	0	0	0	0	0.01	1.92	0.05	238.93
	NOx	62.63	76.44	64.38	0	17.53	0	0	0	0	0.41	10.68	0	0	0	0	1.24	11.40	8.38	253.09
	VOC	2.17	4.20	2.43	0	0.52	3.00	0.24	0.07	0	0.02	0.31	0.07	0	0	0.08	1.07	0.33	0.46	13.99
	CO	76.69	64.21	37.11	0	4.02	0	0	0	0	0.35	2.45	0	0	0	0	1.04	2.61	7.04	195.52
Hazardous Air Pollutants	1,3-Butadiene	0	0	0	0	0	0	0	2.76E-06	0	0	0	2.76E-06	0	0	0	0	0	0	5.51E-06
	1,6-hexamethyldiisocyanate	0	0	0	0	0	1.87E-03	0	0	0	0	0	0	0	0	0	0	0	0	1.87E-03
	1,2,4-Trimethyl benzene	0	0	0	0	0	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0.04
	2,2,4-Trimethylpentane	0	0	0	0	0	0	0	1.79E-03	0	0	0	1.79E-03	0	0	0	0	0	0	3.57E-03
	Acetaldehyde	0.11	0	0	0	1.29E-04	0	0	0	0	0	7.85E-05	0	0	0	0	0	8.38E-05	0	0.11
	Acrolein	0.51	0	0	0	4.03E-05	0	0	0	0	0	2.45E-05	0	0	0	0	0	2.62E-05	0	0.51
	Benzene	0.54	1.61E-03	9.28E-04	0	3.97E-03	0	0	1.41E-03	0	8.71E-06	2.42E-03	1.41E-03	0	0	0	2.60E-05	2.58E-03	1.76E-04	0.55
	N-Butyl acetate	0	0	0	0	0	0.08	0	0	0	0	0	0	0	0	0	0	0	0	0.08
	Cumene	0	0	0	0	0	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0.04
	Dichlorobenzene	0	9.17E-04	5.30E-04	0	0	0	0	0	0	4.98E-06	0	0	0	0	0	1.48E-05	0	1.01E-04	1.57E-03
	Ethylbenzene	0	0	0	0	0	0.24	1.11E-03	1.27E-03	0	0	0	1.27E-03	0	0	0	0	0	0	0.24
	Formaldehyde	0.56	0.06	0.20	0	4.03E-04	0	0	0	0	3.11E-04	2.46E-04	0	0	0	0	9.27E-04	2.62E-04	6.28E-03	0.82
	Glycol Ethers	0	0	0	0	0	0.15	0	0	0	0	0	0	0	0	0	0	0	0	0.15
	Hexane	0	1.38	0.80	0	0	0	0	1.79E-03	0	7.47E-03	0	1.79E-03	0	0	0	0.022	0	0.15	2.36
	HCL	2.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.43
	Isophorone diisocyanate	0	0	0	0	0	4.66E-03	0	0	0	0	0	0	0	0	0	0	0	0	4.66E-03
	Methanol	0	0	0	0	0	0.06	0.03	0	0	0	0	0	0	0	0	0	0	0	0.09
	Methyl-tert-butylether	0	0	0	0	0	0	0	2.46E-04	0	0	0	2.46E-04	0	0	0	0	0	0	4.91E-04
	MIBK	0	0	0	0	0	0.84	0	0	0	0	0	0	0	0	0	0	0	0	0.84
	Napthalene	0	0	0	0	0	0.01	0	1.86E-04	0	0	0	1.86E-04	0	0	0	0	0	0	0.02
	Styrene	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.24
	Toluene	0.12	2.60E-03	1.50E-03	0	1.44E-03	0.45	0.03	6.03E-03	0	1.41E-05	8.75E-04	6.03E-03	0	0	0	4.20E-05	9.34E-04	2.85E-04	0.62
	Total PAH HAPs	0	0	0	0	1.08E-03	0	0	0	0	0	6.60E-04	0	0	0	0	0	7.05E-04	0	2.45E-03
	Polycyclic Organic Matter	0	0	1.06E-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01
	Xylenes	0	0	0	0	9.87E-04	0.90	5.85E-03	6.70E-03	0	0	6.01E-04	6.70E-03	0	0	0	0	6.42E-04	0	0.92
	Arsenic	0	1.53E-04	1.80E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.96E-03
	Beryllium	0	9.17E-06	1.35E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.36E-03
Cadmium	0	8.41E-04	1.35E-03	0	0	0	0	0	0	4.56E-06	0	0	0	0	0	1.36E-05	0	9.22E-05	2.30E-03	
Chromium	0	1.07E-03	1.35E-03	0	0	0	0	0	0	5.81E-06	0	0	0	0	0	1.73E-05	0	1.17E-04	2.56E-03	
Cobalt Compounds	0	0	0	0	0	3.98E-03	0	0	0	0	0	0	0	0	0	0	0	0	3.98E-03	
Lead	0	3.82E-04	4.06E-03	0	0	0	0	0	0	2.07E-06	0	0	0	2.02E-03	0	6.18E-06	0	4.19E-05	6.51E-03	
Manganese	0.20	2.90E-04	2.70E-03	0	0	0	0	0	0.07	1.58E-06	0	0	0.12	0	0	4.70E-06	0	3.18E-05	0.40	
Mercury	0	1.99E-04	1.35E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.55E-03	
Nickel	0	1.61E-03	1.35E-03	0	0	0	0	0	0	8.71E-06	0	0	0	0	0	2.60E-05	0	1.76E-04	3.17E-03	
Selenium	0	1.83E-05	6.76E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.78E-03	
<b>Total HAPs</b>	<b>4.71</b>	<b>1.44</b>	<b>1.03</b>	<b>0</b>	<b>8.05E-03</b>	<b>2.81</b>	<b>0.07</b>	<b>0.02</b>	<b>0.07</b>	<b>7.83E-03</b>	<b>4.90E-03</b>	<b>0.02</b>	<b>0.12</b>	<b>2.02E-03</b>	<b>0</b>	<b>0.023</b>	<b>5.23E-03</b>	<b>0.16</b>	<b>10.50</b>	
<b>*Worst* Single HAP</b>	<b>2.43</b>	<b>1.38</b>	<b>0.80</b>	<b>0</b>	<b>3.97E-03</b>	<b>0.90</b>	<b>0.03</b>	<b>6.70E-03</b>	<b>0.07</b>	<b>7.47E-03</b>	<b>2.42E-03</b>	<b>0.01</b>	<b>0.12</b>	<b>2.02E-03</b>	<b>0</b>	<b>0.022</b>	<b>2.58E-03</b>	<b>0.15</b>	<b>2.43</b>	
	(HCL)	(hexane)	(hexane)		(benzene)	(xylenes)	(toluene)	(xylenes)	(manganese)	(hexane)	(benzene)	(xylenes)	(manganese)	(lead)		(hexane)	(benzene)	(hexane)	(HCL)	

Total emissions are based on rated capacity at 8,760 hours/year, with the exception of the emergency generators which are calculated at 500 hours per year.

mult. = multiple units

**Appendix A.1: Unlimited Emissions Calculations  
Pendleton Correctional Facility (IR) Emission Summary**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Uncontrolled Potential Emissions (tons/year)												
Category	Pollutant	Emissions Generating Activity										TOTAL
		Boiler (B1)	Boilers (B-2 & B-3)	Boilers (B-4 & B-5)	Biomass Handling (mult.)	Diesel-fired Emergency Generator (G-1)	Autobody Refinishing Operation (IR-ARO)	Cold Cleaner Degreaser Units (Parts Washers)	Gasoline Dispensing Facility (IR-GDF)	Welding (mult.)	Insignificant Natural Gas Combustion Units	
Criteria Pollutants	PM	51.13	1.45	6.44	22.11	0.51	0.37	0	0	0.33	0.01	82.34
	PM10	48.19	5.81	7.66	8.05	0.29	0.37	0	0	0.33	0.03	70.73
	PM2.5	41.80	5.81	7.66	8.05	0.29	0.37	0	0	0.33	0.03	64.34
	SO2	3.20	0.46	228.54	0	2.95	0	0	0	0	2.49E-03	235.15
	NOX	62.63	76.44	64.38	0	17.53	0	0	0	0	0.41	221.40
	VOC	2.17	4.20	2.43	0	0.52	3.00	0.24	0.07	0	0.02	12.66
	CO	76.69	64.21	37.11	0	4.02	0	0	0	0	0.35	182.38
Hazardous Air Pollutants	1,3-Butadiene	0	0	0	0	0	0	0	2.76E-06	0	0	2.76E-06
	1,6-hexamethyldiisocyanate	0	0	0	0	0	1.87E-03	0	0	0	0	1.87E-03
	1,2,4-Trimethyl benzene	0	0	0	0	0	0.04	0	0	0	0	0.04
	2,2,4-Trimethylpentane	0	0	0	0	0	0	0	1.79E-03	0	0	1.79E-03
	Acetaldehyde	0.11	0	0	0	1.29E-04	0	0	0	0	0	0.11
	Acrolein	0.51	0	0	0	4.03E-05	0	0	0	0	0	0.51
	Benzene	0.54	1.61E-03	9.28E-04	0	3.97E-03	0	0	1.41E-03	0	8.71E-06	0.54
	N-Butyl acetate	0	0	0	0	0	0.08	0	0	0	0	0.08
	Cumene	0	0	0	0	0	0.04	0	0	0	0	0.04
	Dichlorobenzene	0	9.17E-04	5.30E-04	0	0	0	0	0	0	4.98E-06	1.45E-03
	Ethylbenzene	0	0	0	0	0	0.24	1.11E-03	1.27E-03	0	0	0.24
	Formaldehyde	0.56	0.06	0.20	0	4.03E-04	0	0	0	0	3.11E-04	0.82
	Glycol Ethers	0	0	0	0	0	0.15	0	0	0	0	0.15
	Hexane	0	1.38	0.80	0	0	0	0	1.79E-03	0	7.47E-03	2.18
	HCL	2.43	0	0	0	0	0	0	0	0	0	2.43
	Isophorone diisocyanate	0	0	0	0	0	4.66E-03	0	0	0	0	4.66E-03
	Methanol	0	0	0	0	0	0.06	0.03	0	0	0	0.09
	Methyl-tert-butylether	0	0	0	0	0	0	0	2.46E-04	0	0	2.46E-04
	MIBK	0	0	0	0	0	0.84	0	0	0	0	0.84
	Napthalene	0	0	0	0	0	0.01	0	1.86E-04	0	0	0.015
	Styrene	0.24	0	0	0	0	0	0	0	0	0	0.24
	Toluene	0.12	2.60E-03	1.50E-03	0	1.44E-03	0.45	0.03	6.03E-03	0	1.41E-05	0.61
	Total PAH HAPs	0	0	0	0	1.08E-03	0	0	0	0	0	1.08E-03
	Polycyclic Organic Matter	0	0	1.06E-02	0	0	0	0	0	0	0	0.011
	Xylenes	0	0	0	0	9.87E-04	0.90	5.85E-03	6.70E-03	0	0	0.91
	Arsenic	0	1.53E-04	1.80E-03	0	0	0	0	0	0	0	1.96E-03
	Beryllium	0	9.17E-06	1.35E-03	0	0	0	0	0	0	0	1.36E-03
	Cadmium	0	8.41E-04	1.35E-03	0	0	0	0	0	0	4.56E-06	2.20E-03
	Chromium	0	1.07E-03	1.35E-03	0	0	0	0	0	0	5.81E-06	2.43E-03
	Cobalt Compounds	0	0	0	0	0	3.96E-03	0	0	0	0	3.96E-03
	Lead	0	3.82E-04	4.06E-03	0	0	0	0	0	0	2.07E-06	4.44E-03
	Manganese	0.20	2.90E-04	2.70E-03	0	0	0	0	0	0.07	1.58E-06	0.28
	Mercury	0	1.99E-04	1.35E-03	0	0	0	0	0	0	0	1.55E-03
Nickel	0	1.61E-03	1.35E-03	0	0	0	0	0	0	8.71E-06	2.97E-03	
Selenium	0	1.83E-05	6.76E-03	0	0	0	0	0	0	0	6.78E-03	
<b>Total HAPs</b>		4.71	1.44	1.03	0	8.05E-03	2.81	0.07	0.02	0.07	7.83E-03	10.17
<b>"Worst" Single HAP</b>		2.43	1.38	0.80	0	3.97E-03	0.90	0.03	6.70E-03	0.07	7.47E-03	2.43
		(HCL)	(hexane)	(hexane)		(benzene)	(xylenes)	(toluene)	(xylenes)	(manganese)	(hexane)	(HCL)

Total emissions are based on rated capacity at 8,760 hours/year, with the exception of the emergency generators which are calculated at 500 hours per year.

mult. = multiple units

**Appendix A.1: Unlimited Emissions Calculations**  
**Pendleton Correctional Facility (IR)**  
**Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions From**  
**Fuel Combustion with Maximum Capacity < 100 MMBtu/hr**  
**for Biomass-fired Boiler B-1**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

The following calculations determine the unlimited/uncontrolled emissions created from the combustion of Dry Wood [ONLY] in Boiler B-1.

Maximum Fuel Input Rate* =	1.88	tons/hr
Maximum Fuel Input Rate** =	29.18	MMBtu/hr
HHV <sub>d</sub> =	17.48	MMBtu/ton
Dry Wood Usage =	14,624	tons/yr

**Unlimited/Uncontrolled Emissions**

Criteria Pollutant	Emission Factor Dry Wood (lb/MMBtu)	Unlimited/Uncontrolled Potential to Emit
		Dry Wood (tons/yr)
PM	0.40	51.13
PM10 <sup>(1)</sup>	0.38	48.19
PM2.5 <sup>(1)</sup>	0.33	41.80
SO <sub>2</sub>	0.025	3.20
NO <sub>x</sub>	0.49	62.63
VOC <sup>(2)</sup>	0.017	2.17
CO <sup>(3)</sup>	0.60	76.69
<b>Hazardous Air Pollutant</b>		
Acetaldehyde	8.3E-04	0.11
Acrolein	4.0E-03	0.51
Benzene	4.2E-03	0.54
Dichlorobenzene	0	0
Formaldehyde	4.4E-03	0.56
Hexane	0	0
HCL	1.9E-02	2.43
Styrene	1.9E-03	0.24
Toluene	9.2E-04	0.12
Polycyclic Organic Matter	0	0
Arsenic	0	0
Beryllium	0	0
Cadmium	0	0
Chromium	0	0
Lead	0	0
Manganese	1.60E-03	0.20
Mercury	0	0
Nickel	0	0
Selenium	0	0
<b>Total HAPs =</b>		<b>4.71</b>
<b>Worst Single HAP =</b>		<b>2.43 (HCL)</b>

**Methodology**

MMBtu = 1,000,000 Btu (or 1 MMBtu/10<sup>6</sup> Btu)

Higher Heating Value (HHV) of wood fuel 40 CFR Part 98 Subpart C, Table C-1.

HHV<sub>d</sub> = dry basis HHV from Table C-1 = 17.48 MMBtu/ton

Dry wood is considered to have less than 20% moisture content. The lowest moisture content reported for a wood chip delivery is 7.3%, and the highest 11.2%.

(1) The PM, PM10, and PM2.5 emission factors represent filterable PM captured and measured on the filter in an EPA Method 5 (or equivalent) sampling train, plus condensible PM captured and measured in an EPA Method 202 (or equivalent) sampling train.

(2) The VOC emission factor taken from Table 1.6-3, page 1.6-11.

(3) The CO emission factor is for stokers and dutch ovens/fuel cells. Change the emission factor to 0.17 lb/MMBtu if the calculations are for a fluidized bed combustor.

Emission Factors are from AP-42 Chapter 1.6 (revised 09/03). These factors apply to SCCs #1-0X-009-YY, where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional; Y = 01 for bark-fired boilers, 02 for bark and wet wood-fired boilers, 03 for wet wood-fired boilers, and 08 for dry wood-fired boilers.

\*Maximum wood throughput (tons/hr), as determined during 2014 stack test.

\*\*Maximum Fuel Input Rate (MMBtu/hr) =  $[(100 - M)/100] * HHV_d * \text{Maximum wood throughput (tons/hr)}$

M = moisture content (percent) = 11.2% (as determined during 2014 stack test).

To convert from Maximum Fuel Input Rate (MMBtu/hr) to Maximum Wood Usage (tons/hr):

Equivalent Material Usage (tons/yr) = Maximum Fuel Input Rate (MMBtu/hr) \* 1/Higher Heating Value (HHV) of wood fuel (MMBtu/ton) \* 8760 hrs/yr

Uncontrolled Emissions (tons/yr) = Maximum Fuel Input Rate (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760hrs/yr x 1ton/2000lbs

**Abbreviations**

PM = Particulate Matter

PM10 = Particulate Matter (<10 um) NO<sub>x</sub> = Nitrogen Oxides

PM2.5 = Particulate Matter (<2.5 um) VOC = Volatile Organic Compounds

SO<sub>2</sub> = Sulfur Dioxide CO = Carbon Monoxide

HAP = Hazardous Air Pollutant

HCl = Hydrogen Chloride

PAH = Polyaromatic Hydrocarbon

**Appendix A.1: Unlimited Emissions Calculations**  
**Pendleton Correctional Facility (IR)**  
**Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions From**  
**Fuel Combustion with Maximum Capacity < 100 MMBtu/hr**  
**for Boilers B-2 and B-3**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

The following calculations determine the unlimited/uncontrolled emissions created from the combustion of natural gas (ONLY) in Boilers B-2 & B-3.

Maximum Fuel Input Rate = 178.02 MMBtu/hr  
 Natural Gas Usage = 1,529 MMCF/yr  
 No. 2 Fuel Oil Usage = 0 gal/yr, and 0 % sulfur

Location	Unit	MMBtu/hr
Power House	Boiler 2	79.12
Power House	Boiler 3	98.90
<b>Total</b>		<b>178.02</b>

**Unlimited/Uncontrolled Emissions**

Criteria Pollutant	Emission Factor (units)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		Worse Case Fuel (tons/yr)
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	
PM	1.9	2.0	1.45	0.00	1.45
PM10	7.6	2.4	5.81	0.00	5.81
PM2.5	7.6	2.1	5.81	0.00	5.81
SO <sub>2</sub>	0.6	0.0	0.46	0.00	0.46
NO <sub>x</sub>	100	20.0	76.44	0.00	76.44
VOC	5.5	0.34	4.20	0.00	4.20
CO	84	5.0	64.21	0.00	64.21
<b>Hazardous Air Pollutant</b>					
Arsenic	2.0E-04	5.6E-04	1.5E-04	0.00E+00	1.5E-04
Beryllium	1.2E-05	4.2E-04	9.2E-06	0.00E+00	9.2E-06
Cadmium	1.1E-03	4.2E-04	8.4E-04	0.00E+00	8.4E-04
Chromium	1.4E-03	4.2E-04	1.1E-03	0.00E+00	1.1E-03
Lead	5.0E-04	1.3E-03	3.8E-04	0.00E+00	3.8E-04
Manganese	3.8E-04	8.4E-04	2.9E-04	0.00E+00	2.9E-04
Mercury	2.6E-04	4.2E-04	2.0E-04	0.00E+00	2.0E-04
Nickel	2.1E-03	4.2E-04	1.6E-03	0.00E+00	1.6E-03
Selenium	2.4E-05	2.1E-03	1.8E-05	0.00E+00	1.8E-05
Benzene	2.1E-03		1.6E-03		1.6E-03
Dichlorobenzene	1.2E-03		9.2E-04		9.2E-04
Formaldehyde	7.5E-02	6.10E-02	5.7E-02	0.00E+00	0.057
Hexane	1.8E+00		1.4E+00		1.376
Toluene	3.4E-03		2.6E-03		2.6E-03
Polycyclic Organic Matter		3.30E-03		0.00E+00	0.0E+00
<b>Total HAPs =</b>			<b>1.44</b>	<b>0.00</b>	<b>1.44</b>
<b>Worst Single HAP =</b>			<b>1.38</b>	<b>0.00</b>	<b>1.38</b>
			<b>(Hexane)</b>	<b>(Formaldehyde)</b>	<b>(Hexane)</b>

**Methodology**

Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 MMCF/1,020 MMBtu]

No. 2 Fuel Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.140 MMBtu]

Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] \* [Emission Factor (lb/MMCF)] \* [ton/2000 lbs]

No. 2 Fuel Oil: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] \* [Emission Factor (lb/kgal)] \* [kgal/1000 gal] \* [ton/2000 lbs]

Sources of AP-42 Emission Factors for fuel combustion:

Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4

No. 2 Fuel Oil: AP-42 Chapter 1.3 (dated 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, and 1.3-10.

**Abbreviations**

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

SO<sub>2</sub> = Sulfur Dioxide

NO<sub>x</sub> = Nitrogen Oxides

VOC - Volatile Organic Compounds

CO = Carbon Monoxide

HAP = Hazardous Air Pollutant

HCl = Hydrogen Chloride

PAH = Polyaromatic Hydrocarbon

**Appendix A.1: Unlimited Emissions Calculations**  
**Pendleton Correctional Facility (IR)**  
**Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions From**  
**Fuel Combustion with Maximum Capacity < 100 MMBtu/hr**  
**for Boilers B-4 & B-5**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

The following calculations determine the unlimited/uncontrolled emissions created from the combustion of natural gas and No. 2 fuel oil in Boilers B-4 & B-5.

Maximum Fuel Input Rate = 102.89 MMBtu/hr  
 Natural Gas Usage = 884 MMCF/yr  
 No. 2 Fuel Oil Usage = 6,437,724 gal/yr, and 0.50 % sulfur

Location	Unit	MMBtu/hr
Power House	Boiler 4	41.00
Power House	Boiler 5	61.89
<b>Total</b>		<b>102.89</b>

**Unlimited/Uncontrolled Emissions**

Criteria Pollutant	Emission Factor (units)		Unlimited/Uncontrolled Potential to Emit (tons/yr)		Worse Case Fuel (tons/yr)
	Natural Gas (lb/MMCF)	No. 2 Fuel Oil (lb/kgal)	Natural Gas (tons/yr)	No. 2 Fuel Oil (tons/yr)	
PM	1.9	2.0	0.84	6.44	6.44
PM10	7.6	2.4	3.36	7.66	7.66
PM2.5	7.6	2.1	3.36	6.86	6.86
SO2	0.6	71.0	0.27	228.54	228.54
NOx	100	20.0	44.18	64.38	64.38
VOC	5.5	0.34	2.43	1.09	2.43
CO	84	5.0	37.11	16.09	37.11
<b>Hazardous Air Pollutant</b>					
Arsenic	2.0E-04	5.6E-04	8.8E-05	1.80E-03	1.8E-03
Beryllium	1.2E-05	4.2E-04	5.3E-06	1.35E-03	1.4E-03
Cadmium	1.1E-03	4.2E-04	4.9E-04	1.35E-03	1.4E-03
Chromium	1.4E-03	4.2E-04	6.2E-04	1.35E-03	1.4E-03
Lead	5.0E-04	1.3E-03	2.2E-04	4.06E-03	4.1E-03
Manganese	3.8E-04	8.4E-04	1.7E-04	2.70E-03	2.7E-03
Mercury	2.6E-04	4.2E-04	1.1E-04	1.35E-03	1.4E-03
Nickel	2.1E-03	4.2E-04	9.3E-04	1.35E-03	1.4E-03
Selenium	2.4E-05	2.1E-03	1.1E-05	6.76E-03	6.8E-03
Benzene	2.1E-03		9.3E-04		9.3E-04
Dichlorobenzene	1.2E-03		5.3E-04		5.3E-04
Formaldehyde	7.5E-02	6.10E-02	3.3E-02	1.96E-01	0.196
Hexane	1.8E+00		8.0E-01		0.795
Toluene	3.4E-03		1.5E-03		1.5E-03
Polycyclic Organic Matter		3.30E-03		1.06E-02	0.011
<b>Total HAPs =</b>			<b>0.83</b>	<b>0.23</b>	<b>1.03</b>
<b>Worst Single HAP =</b>			<b>0.80</b>	<b>0.20</b>	<b>0.80</b>
			<b>(Hexane)</b>	<b>(Formaldehyde)</b>	<b>(Hexane)</b>

**Methodology**

Equivalent Natural Gas Usage (MMCF/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 MMCF/1,020 MMBtu]

Equivalent No. 2 Fuel Oil Usage (gal/yr) = [Maximum Fuel Input Rate (MMBtu/hr)] \* [8,760 hrs/yr] \* [1 gal/0.140 MMBtu]

Natural Gas: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Natural Gas Usage (MMCF/yr)] \* [Emission Factor (lb/MMCF)] \* [ton/2000 lbs]

No. 2 Fuel Oil: Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Fuel Usage (gals/yr)] \* [Emission Factor (lb/kgal)] \* [kgal/1000 gal] \* [ton/2000 lbs]

Sources of AP-42 Emission Factors for fuel combustion:

Natural Gas : AP-42 Chapter 1.4 (dated 7/98), Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4

No. 2 Fuel Oil: AP-42 Chapter 1.3 (dated 5/10), Tables 1.3-1, 1.3-2, 1.3-3, 1.3-8, 1.3-9, and 1.3-10.

**Abbreviations**

PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PM2.5 = Particulate Matter (<2.5 um)

SO2 = Sulfur Dioxide

NOx = Nitrogen Oxides

VOC - Volatile Organic Compounds

CO = Carbon Monoxide

HAP = Hazardous Air Pollutant

HCl = Hydrogen Chloride

PAH = Polyaromatic Hydrocarbon

**Appendix A.1: Unlimited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Particulate Emissions from the  
Wood Chips (Biomass) and Ash Handling Operations**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

	<b>Biomass Unloading/Receiving</b>	<b>Biomass Headhouse and Internal Handling (legs/belts, distributor, etc)</b>	<b>Ash Internal Handling (auger, container)</b>	<b>Biomass Storage bin (vent)</b>
Throughput (lbs/hr)	18,400	3,000	500	220,000
<b>Throughput (tons/hr)</b>	<b>9.20</b>	<b>1.50</b>	<b>0.25</b>	<b>110.0</b>

<b>Unloading/Receiving Emission Factors (lbs/ton)</b>							
<b>Straight Truck</b>		<b>Hopper Truck</b>		<b>Railcar</b>		<b>Barge/Ship</b>	
PM	PM <sub>10</sub>	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>
0.18	0.059	0.035	0.0078	0.032	0.0078	0.15	0.038

Worst-case Emission Factors Representing this source = PM = 0.18 lbs/ton      PM<sub>10</sub> = 0.059 lbs/ton

	<b>Biomass Unloading/Receiving</b>		<b>Biomass Headhouse and Internal Handling (legs/belts, distributor, etc)</b>		<b>Ash Internal Handling (auger, container)</b>		<b>Biomass Storage bin (vent)</b>	
	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>
Emission Factor (lbs/ton)	0.18	0.059	0.061	0.034	2.2	2.2	0.025	0.0063
Potential Emissions (tons/yr)	7.25	2.38	0.40	0.22	2.41	2.41	12.05	3.04
Controls (overall % efficiency)	0%	0%	90.00%	90.00%	0%	0%	90.00%	90.00%
Controlled Potential Emissions (tons/yr)	7.25	2.38	0.04	0.02	2.41	2.41	1.20	0.30

<b>Total Uncontrolled Emissions (tons/yr)</b>		<b>PM</b>	<b>PM10</b>
		<b>22.11</b>	<b>8.05</b>
<b>Total Controlled Emissions (tons/yr)</b>		<b>10.91</b>	<b>5.11</b>

**Methodology**

Emission factors are from AP-42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (Supplement D, 5/98)  
Potential Emissions (tons/yr) = Potential Emissions (tons/yr) \* (1-Control Efficiency)

**Note**

In the absence of valid PM<sub>2.5</sub> Emission Factors, it is assumed that PM<sub>2.5</sub> emissions = PM<sub>10</sub> emissions.  
The maximum storage capacity of the storage silo is 220,000 pounds of wood chips. Therefore, 220,000 lbs \* 1 ton/2,000 lbs = 110 tons.  
The truck unloading operation can process a maximum of 18,400 pounds of wood chips/hr. Therefore, 18,400 lbs/hr \* 1 ton/2,000 lbs = 9.20 tons/hr.  
The biomass handling system can process a maximum of 3,000 pounds of wood chips per hour. Therefore, 3,000 lbs/hr \* 1 ton/2,000 lbs = 1.5 tons/hr.  
The ash disposal system is capable of processing a maximum of 500 pounds of ash per hour. Therefore, 500 lbs/hr \* 1 ton/2,000 lbs = 0.25 tons/hr.  
To form a conservative estimate when calculating potential emissions from the Bin Vent, it has been assumed that it takes only 1 hr to completely load the storage silo.

**Appendix A.1: Unlimited Emissions Calculations**  
**Pendleton Correctional Facility (IR)**  
**Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from**  
**Large Reciprocating Internal Combustion Engines - Diesel Fuel**  
**Output Rating (>600 HP)**  
**Maximum Input Rate (>4.2 MMBtu/hr)**  
**IR Generator G-1**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit Number:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	2,922.0	Maximum Diesel Fuel Usage (gal/yr)	74,633
Maximum Hours Operated per Year	500	Sulfur Content (S) of Fuel (% by weight)	0.50
Potential Throughput (hp-hr/yr)	1,461,000		

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03 (.00809S)	2.40E-02 **see below	7.05E-04	5.50E-03
Potential Emission in tons/yr	0.51	0.29	0.29	2.95	17.53	0.52	4.02

\*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Maximum Diesel Fuel Usage (gal/yr) = [Potential Throughput (hp-hr/yr) \* (average brake specific fuel consumption of 7,000 Btu / hp-hr) \* 1 / (diesel heating value of 19,300 Btu/lb) \* 1 / (diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1))]

**Hazardous Air Pollutants (HAPs)**

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	3.97E-03	1.44E-03	9.87E-04	4.03E-04	1.29E-04	4.03E-05	1.08E-03

\*\*\*PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

\*\*\*\*Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

**Potential Emission of Total HAPs (tons/yr) 8.05E-03**

**Methodology**

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] \* [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] \* [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

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updated 10/2014

**Appendix A.1: Unlimited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Particulate and Volatile Organic Compound (VOC) Emissions  
From the Autobody Refinishing Operation (IR-ARO)**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water & Exempt Solvents	Weight % Organics	Volume % Water & Exempt Solvents	Volume % Non-Volatiles (solids)	Max. Material Usage (gal/hr)	Pounds VOC per gallon of coating less water & exempt solvents	Pounds VOC per gallon of coating	Potential VOC (lbs/day)	Potential VOC (ton/yr)	Potential Particulate (ton/yr)	lb VOC/gal solids	Transfer Efficiency	
Basecoat	435-93	7.01	87.48%	0.50%	86.98%	0.50%	8.84%	0.04	6.13	6.10	5.28	0.96	0.03	68.97	75%
Clearcoat	401-20	8.09	58.62%	0.52%	58.10%	0.52%	34.28%	0.04	4.72	4.70	4.07	0.74	0.13	13.71	75%
Acrylic Enamel	418-01	8.01	58.68%	0.07%	58.61%	0.07%	33.95%	0.04	4.70	4.70	4.06	0.74	0.13	13.83	75%
Reducer	483-54	8.14	99.51%	0.06%	99.45%	0.06%	0.94%	0.01	8.10	8.10	1.94	0.35	4.37E-04	861.17	75%
Basemaker	7770S	10.86	42.36%	0.05%	42.31%	0.05%	34.50%	0.01	4.60	4.60	1.10	0.20	0.07	13.32	75%
Total Maximum Material Usage (gal/hr) =								0.13							
Total Maximum Material Usage (gal/day) =								3.08							
Total Maximum Material Usage (gal/yr) =								1,123							
<b>Totals</b>										<b>16.45</b>	<b>3.00</b>	<b>0.37</b>			

**NOTES**

Add worst case coating to all solvents

Emissions for each coating category (i.e., base coat, etc...) were calculated using the coating with the highest VOC content.

Transfer efficiency for the autobody shop is estimated to be 75%, based on the transfer efficiency of airless spray coating for flat surface.

PM10 & PM2.5 emissions are each assumed equal to PM emissions

Note: The paint shop involves manual application of coatings using brush application for the purposes of maintenance of the facility. Therefore, emissions are not counted towards the PTE, and 326 IAC 6-3-2 and 326 IAC 8 limitations and requirements do not apply.

**METHODOLOGY**

Weight % Volatile (H2O & Organics) = 100% - Weight % Non-Volatiles (solids)

Weight % Organics = Weight % Volatile (H2O & Organics) - Weight % Water & Exempt Solvents

Volume % Water & Exempt Solvents = Data not available. Is assumed equal to the Weight % Water & Exempt Solvents.

Volume % Non-Volatiles (solids) taken directly from MSDSs supplied by the source

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds VOC per gallon of coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) \* Max Gal of Material (gal/yr) \* (1 ton/2000 lbs)

Potential Particulate (tons/yr) = (gal/yr) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \* (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

State Potential Emissions (tons/yr) = Σ(Worst Coatings) + Σ(Solvents)

Total Maximum Material Usage (gal/hr) = [Σ(Max. Material Usage (gal/hr))]

Total Maximum Material Usage (gal/day) = [Total Maximum Material Usage (gal/hr) \* 24 hrs/day]

Total Maximum Material Usage (gal/yr) = [Total Maximum Material Usage (gal/hr) \* 8760 hrs/yr]



**Appendix A.1: Unlimited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Hazardous Air Pollutant (HAP) Emissions  
From the Autobody Refinishing Operation (IR-ARO)**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Material	Max Gal of Material (gal/hr)	Weight % 1,6-hexamethyl diisocyanate	Weight % 1,2,4-trimethyl benzene	Weight % N-butyl Alcohol	Weight % Cumene	Weight % Ethylbenzene	Weight % Glycol Ethers	Weight % Isophorone diisocyanate	Weight % Methanol	Weight % MIBK	Weight % Naphthalene	Weight % Toluene	Weight % Xylenes *	Weight % Cobalt Compounds
Basecoat	0.036	0%	0%	0%	0%	7.20%	0%	0%	0%	54.00%	0.30%	8.00%	29.00%	0%
Clearcoat	0.036	0%	0%	0%	0%	5.30%	3.00%	0%	0%	3.00%	0%	9.00%	21.00%	0%
Acrylic Enamel	0.036	0%	0%	0%	2.60%	3.00%	3.00%	0%	0%	3.00%	0.70%	10.00%	9.00%	0.30%
Reducer	0.010	0.40%	11.00%	26.00%	0.60%	6.10%	20.00%	1.20%	20.00%	38.00%	0.50%	30.00%	24.00%	0.10%
Basemaker	0.010	0%	0%	0%	0%	4.70%	0%	0%	0%	8.00%	0%	2.00%	15.00%	0%

Material	Max Gal of Material (gal/yr)	1,6-hexamethyl diisocyanate Emissions (ton/yr)	1,2,4-trimethyl benzene Emissions (ton/yr)	N-butyl Alcohol Emissions (ton/yr)	Cumene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Isophorone diisocyanate Emissions (tons/yr)	Methanol Emissions (tons/yr)	MIBK Emissions (tons/yr)	Napthalene Emissions (tons/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cobalt Compounds Emissions (ton/yr)
Basecoat	0.036	0	0	0	0	0.09	0	0	0	0.60	3.86E-03	0.11	0.37	0
Clearcoat	0.036	0	0	0	0	0.06	0.04	0	0	0.04	0	0.11	0.25	0
Acrylic Enamel	0.036	0	0	0	0.03	0.04	0.04	0	0	0.04	9.08E-03	0.12	0.12	3.55E-03
Reducer	0.010	1.87E-03	0.04	0.08	2.19E-03	0.02	0.07	4.66E-03	0.06	0.13	1.72E-03	0.11	0.084	4.10E-04
Basemaker	0.010	0	0	0	0	0.02	0	0	0	0.03	0	6.61E-03	0.076	0

<b>Totals</b>	<b>Single HAP</b>	<b>1.87E-03</b>	<b>0.04</b>	<b>0.08</b>	<b>0.04</b>	<b>0.24</b>	<b>0.15</b>	<b>4.66E-03</b>	<b>0.06</b>	<b>0.84</b>	<b>0.01</b>	<b>0.45</b>	<b>0.90</b>	<b>0.00</b>
	<b>Combined HAPs</b>	<b>2.810</b>												

**NOTES**

\*Previously, an entry was made separately for p-Xylene, this has been consolidated into the "Xylenes" category.

Methyl isobutyl ketone (MIBK) is also known as Hexone.

Single HAP emissions represent a worst-case composite of the coatings for each coating category (i.e., base coat, etc...) used at this source. Emissions were calculated for each single HAP using the density and weight % of the worst-case coating for that HAP.

Note: The paint shop involves manual application of coatings using brush application for the purposes of maintenance of the facility. Therefore, emissions are not counted towards the PTE, and 326 IAC 6-3-2 and 326 IAC 8 limitations and requirements do not apply.

**METHODOLOGY**

Single HAPS emission rate (tons/yr) = Density of worst-case coating (lb/gal) \* Max Gal of Material (gal/yr) \* Weight % HAP of worst-case coating \* 1 ton/2000 lbs

**Appendix A.1: Unlimited Emissions Calculations**  
**Pendleton Correctional Facility (IR)**  
**Volatile Organic Compound (VOC) and Hazardous Air Pollutant (HAP) Emissions**  
**From the Five (5) Cold Cleaner Degreaser Units (Parts Washers)**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

**Volatile Organic Compound (VOC) Emissions**

Location	Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Max Gal of Mat. (gal/yr)	Pounds VOC per gallon of coating less water & exempt solids	Pounds VOC per gallon of coating	Potential VOC (lbs/day)	Potential VOC (ton/yr)
Garage-Outside	Zep Dyna 143	6.58	100.00%	0.0%	100.0%	0.0%	0.00%	1.00	6.58	6.58	0.02	3.29E-03
Grounds-Outside	Zep Dyna 143	6.58	100.00%	0.0%	100.0%	0.0%	0.00%	10.00	6.58	6.58	0.18	0.03
Autobody- Inside	Nason 105 Laquer Thinner	6.96	100.00%	0.0%	100.0%	0.0%	0.00%	20.00	6.96	6.96	0.38	0.07
Paint Shop-Inside	Zep Dyna 143	6.58	100.00%	0.0%	100.0%	0.0%	0.00%	20.00	6.58	6.58	0.36	0.07
Paint Shop-Outside	Zep Dyna 143	6.58	100.00%	0.0%	100.0%	0.0%	0.00%	20.00	6.58	6.58	0.36	0.07
								71.00			1.30	0.24

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC pounds per day = Pounds of VOC per Gallon coating (lb/gal) \* Max Gal of Material (gal/yr) \* (1 yr/8760hrs) \* (24 hrs/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Max Gal of Material (gal/yr) \* (1 ton/2000 lbs)

PM10 and PM2.5 emissions are assumed equal to PM emissions.

PM/PM10 Potential Tons per Year = (gal/yr) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \* (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

<b>Total PTE VOC (tons/yr)</b>	<b>0.24</b>
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**Hazardous Air Pollutant (HAP) Emissions**

Location	Material	Density (Lb/Gal)	Max Gal of Material (gal/yr)	Weight % Ethylbenzene	Weight % Glycol Ethers	Weight % Hexane	Weight % Methanol	Weight % Toluene	Weight % Xylene
Garage-Outside	Zep Dyna 143	6.58	1.00	0%	0%	0%	0%	0%	1.00%
Grounds- Outside	Zep Dyna 143	6.58	10.00	0%	0%	0%	0%	0%	1.00%
Autobody- Inside	Nason 105 Lacquer Thinner	6.96	20.00	1.60%	0%	0%	38.00%	49.00%	6.00%
Paint Shop-Inside	Zep Dyna 143	6.58	20.00	0%	0%	0%	0%	0%	1.00%
Paint Shop-Outside	Zep Dyna 143	6.58	20.00	0%	0%	0%	0%	0%	1.00%

Location	Material	Density (Lb/Gal)	Max Gal of Material (gal/yr)	Ethylbenzene Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Hexane Emissions (ton/yr)	Methanol Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAPs
Garage-Outside	Zep Dyna 143	6.58	1.00	0	0	0	0	0	3.29E-05	
Grounds- Outside	Zep Dyna 143	6.58	10.00	0	0	0	0	0	3.29E-04	
Autobody- Inside	Nason 105 Lacquer Thinner	6.96	20.00	1.11E-03	0	0	2.64E-02	3.41E-02	4.18E-03	
Paint Shop-Inside	Zep Dyna 143	6.58	20.00	0	0	0	0	0	6.58E-04	
Paint Shop-Outside	Zep Dyna 143	6.58	20.00	0	0	0	0	0	6.58E-04	
<b>Total PTE (tons/yr)</b>				<b>1.11E-03</b>	<b>0</b>	<b>0</b>	<b>0.026</b>	<b>0.034</b>	<b>5.85E-03</b>	<b>0.07</b>

**NOTE**

The Zep Dyna 143 consists of light aliphatic naphtha (CAS 64742-88-7), aka Mineral Spirits, which contains 1% xylenes. Reference: Table 1. Default Organic HAP Mass Fraction for Solvents and Solvent Blends (Source: 40 CFR 63).

**METHODOLOGY**

HAPS emission rate (tons/yr) = Density (lb/gal) \* Max Gal of Material (gal/yr) \* Weight % HAP \* 1 ton/2000 lbs

**Appendix A.1: Unlimited Emissions Calculations**  
**Pendleton Correctional Facility (IR)**  
**Volatile Organic Compounds and Hazardous Air Pollutants (HAPs)**  
**from the Gasoline Fuel Transfer and Dispensing (GDF) Operation**

**Company Name:** Pendleton Correctional Facility  
**Source Address:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit Number:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

To calculate evaporative emissions from the gasoline dispensing fuel transfer and dispensing operation emission factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids were used. The total potential emission of VOC is as follows:

Gasoline Throughput = 20.4 gallons/day  
Gasoline Throughput = 7.45 kgal/yr

**Volatile Organic Compounds**

Emission Source	Emission Factor (lb/kgal of throughput)*	PTE of VOC (tons/yr)
Filling storage tank (submerged filling)	7.30	0.0272
Tank breathing and emptying	1.00	0.0037
Vehicle refueling (displaced losses - uncontrolled)	11.00	0.0410
Spillage	0.70	0.0026
<b>Total</b>		<b>0.07</b>

The potential to emit (PTE) Hazardous Air Pollutants (HAPs) were estimated using published gasoline data and assuming that the HAP % composition of the gasoline vapor is similar to the HAP % composition in liquid gasoline.

**Hazardous Air Pollutants (HAPs)**

Volatile Organic HAP	CAS#	HAP Content for Gasoline (% by weight)**	PTE of HAP (tons/yr)
1,3-Butadiene	106-99-0	3.70E-5%	2.8E-06
2,2,4-Trimethylpentane	540-84-1	2.40%	1.8E-03
Benzene	71-43-2	1.90%	1.4E-03
Ethylbenzene	100-41-4	1.70%	1.3E-03
n-Hexane	110-54-3	2.40%	1.8E-03
Methyl-tert-butylether	1634-04-4	0.33%	2.5E-04
Naphthalene	91-20-3	0.25%	1.9E-04
Toluene	108-88-3	8.10%	6.0E-03
Total Xylenes	1330-20-7	9.00%	6.7E-03

**Total PTE of HAPs (tons/yr)      0.02**  
**PTE of Worst Single HAP (tons/yr)      0.01      (xylenes)**

**Methodology**

\*Emission Factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids (dated 6/08), Table 5.2-7.

\*\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehsfoundation.org/Publications.aspx>

The gasoline throughput was provided by the source.

Gasoline Throughput (kgal/yr) = [Gasoline Throughput (gallons/day)] \* [365 days/yr] \* [kgal/1000 gal]

PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)] \* [Emission Factor (lb/kgal)] \* [ton/2000 lb]

PTE of HAP (tons/yr) = [HAP Content of Gasoline (% by weight)] \* [PTE of VOC (tons/yr)]

**Abbreviations**

VOC = Volatile Organic Compounds

HAP = Hazardous Air Pollutant

PTE = Potential to Emit

**Appendix A.1: Unlimited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Particulate and Hazardous Air Pollutant Emissions (HAPs)  
from the Welding and Thermal Cutting**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	Max. electrode consumption per station (lbs/day)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM <sub>10</sub>	Mn	Ni	Cr	PM = PM <sub>10</sub>	Mn	Ni	Cr	
<b>WELDING</b>												
Submerged Arc (SAW)	1	1.35	32.4	0.036	0.011			0.049	0.015	0	0	0.015
Metal Inert Gas (MIG)(carbon steel)	4	0.5	12.0	0.0055	0.0005			0.011	0.001	0	0	0.001
Tungsten Inert Gas (TIG)(carbon steel)	2	0.5	12.0	0.0055	0.0005			0.006	0.001	0	0	0.001
		2.35										
<b>FLAME CUTTING</b>				EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM <sub>10</sub>	Mn	Ni	Cr	PM = PM <sub>10</sub>	Mn	Ni	Cr	
Plasma**	1	0.75	48	0.0039				0.011	0	0	0	0
<b>EMISSION TOTALS</b>												
<b>Potential Emissions lbs/hr</b>								0.08	0.02	0	0	0.02
<b>Potential Emissions lbs/day</b>								1.83	0.39	0	0	0.39
<b>Potential Emissions tons/year</b>								0.33	0.07	0	0	0.07

**METHODOLOGY**

Max. electrode consumption per station (lbs/day) = [Max. electrode consumption per station (lbs/hr) \* 24 hrs/day]

\*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

\*Rod consumption (lbs/hour) was determined from a max rod usage of 30 rods per hour, a diameter of 1/8", a 13" length, and a carbon steel density of 1.35 lbs/hr.

\*\*Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

PM=PM<sub>10</sub>=PM<sub>2.5</sub>

**326 IAC 6-3-2(e) ALLOWABLE RATE OF EMISSIONS**

- Pursuant to 326 IAC 6-3-1(b)(9), welding processes that consume less than six hundred twenty-five (625) pounds of rod or wire per day are exempt from this rule.

$$= 1.35 + 0.5 + 0.5 = 2.35 \text{ lbs/hr} * 24 \text{ hrs/day} = 56.4 \text{ lbs/day}$$

- Pursuant to 326 IAC 6-3-1(b)(10), torch cutting, provided that less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less is cut is exempt from this rule.

$$= 48 \text{ (inches/minute)} * 60 \text{ (minutes/hr)} = 2,880 \text{ inches/hr.}$$

**Appendix A.1: Unlimited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from  
Insignificant Natural Gas-Fired Combustion Units  
with a maximum heat input capacity <100 MMBtu/hr, each**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Location	Equipment Name	ID	MMBtu/hr
Garage	Radiant Heater 1	B-20	0.10
Garage	Radiant Heater 2	B-21	0.10
Garage	Radiant Heater 3	B-22	0.10
Garage	Radiant Heater 4	B-23	0.10
Garage	Furnace 1	B-24	0.060
Garage	Forced Air Heater 1	B-25	0.05
Garage	Forced Air Heater 2	B-26	0.05
Construction Services	Office Heater	B-27	0.135
Construction Services	Shop Heater	B-28	0.196
Garage	Water Heater 1	B-29	0.075
<b>Total</b>			<b>0.97</b>

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
0.97	1020	8.30

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5	SO <sub>2</sub>	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	7.88E-03	0.03	0.03	2.49E-03	0.41	0.02	0.35

\*PM emission factor is filterable PM only. PM10 & PM2.5 emission factors are filterable and condensable fractions combined.  
 \*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	8.71E-06	4.98E-06	3.11E-04	7.47E-03	1.41E-05

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.07E-06	4.56E-06	5.81E-06	1.58E-06	8.71E-06

The five highest organic and metal HAPs emission factors are provided above.

**Methodology**

All emission factors are based on normal firing.  
 MMBtu = 1,000,000 Btu  
 MMCF = 1,000,000 Cubic Feet of Gas  
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu  
 Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04 (AP-42 Supplement D 3/5)  
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

updated 10/2014

**Appendix A.1: Unlimited Emissions Calculations  
Correctional Industrial Facility (CIF) Emission Summary**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Uncontrolled Potential Emissions (tons/year)								
Category	Pollutant	Emissions Generating Activity						TOTAL
		Diesel-fired Emergency Generators (G-2 & G-3)	Gasoline Dispensing Facility (CIF-GDF)	Welding (mult.)	Grinding (mult.)	CNC Machining (Coolant)	Insignificant Natural Gas Combustion Units	
Criteria Pollutants	PM	0.31	0	0.40	0.03	0	0.02	<b>0.76</b>
	PM10	0.18	0	0.40	0.01	0	0.09	<b>0.68</b>
	PM2.5	0.18	0	0.40	0.01	0	0.09	<b>0.68</b>
	SO2	1.80	0	0	0	0	0.01	<b>1.81</b>
	NOx	10.68	0	0	0	0	1.24	<b>11.92</b>
	VOC	0.31	0.07	0	0	0.08	0.07	<b>0.54</b>
	CO	2.45	0	0	0	0	1.04	<b>3.49</b>
Hazardous Air Pollutants	1,3-Butadiene	0	2.76E-06	0	0	0	0	<b>2.76E-06</b>
	1,6-hexamethyldiisocyanate	0	0	0	0	0	0	<b>0</b>
	1,2,4-Trimethyl benzene	0	0	0	0	0	0	<b>0</b>
	2,2,4-Trimethylpentane	0	1.79E-03	0	0	0	0	<b>1.79E-03</b>
	Acetaldehyde	7.85E-05	0	0	0	0	0	<b>7.85E-05</b>
	Acrolein	2.45E-05	0	0	0	0	0	<b>2.45E-05</b>
	Benzene	2.42E-03	1.41E-03	0	0	0	2.60E-05	<b>3.86E-03</b>
	N-Butyl acetate	0	0	0	0	0	0	<b>0</b>
	Cumene	0	0	0	0	0	0	<b>0</b>
	Dichlorobenzene	0	0	0	0	0	1.48E-05	<b>1.48E-05</b>
	Ethylbenzene	0	1.27E-03	0	0	0	0	<b>1.27E-03</b>
	Formaldehyde	2.46E-04	0	0	0	0	9.27E-04	<b>1.17E-03</b>
	Glycol Ethers	0	0	0	0	0	0	<b>0</b>
	Hexane	0	1.79E-03	0	0	0	0.022	<b>0.02</b>
	HCL	0	0	0	0	0	0	<b>0</b>
	Isophorone diisocyanate	0	0	0	0	0	0	<b>0</b>
	Methanol	0	0	0	0	0	0	<b>0</b>
	Methyl-tert-butylether	0	2.46E-04	0	0	0	0	<b>2.46E-04</b>
	MIBK	0	0	0	0	0	0	<b>0</b>
	Napthalene	0	1.86E-04	0	0	0	0	<b>1.86E-04</b>
	Styrene	0	0	0	0	0	0	<b>0</b>
	Toluene	8.75E-04	6.03E-03	0	0	0	4.20E-05	<b>6.95E-03</b>
	Total PAH HAPs	6.60E-04	0	0	0	0	0	<b>6.60E-04</b>
	Polycyclic Organic Matter	0	0	0	0	0	0	<b>0</b>
	Xylenes	6.01E-04	6.70E-03	0	0	0	0	<b>7.30E-03</b>
	Arsenic	0	0	0	0	0	0	<b>0</b>
	Beryllium	0	0	0	0	0	0	<b>0</b>
	Cadmium	0	0	0	0	0	1.36E-05	<b>1.36E-05</b>
	Chromium	0	0	0	0	0	1.73E-05	<b>1.73E-05</b>
	Cobalt Compounds	0	0	0	0	0	0	<b>0</b>
	Lead	0	0	0	2.02E-03	0	6.18E-06	<b>2.03E-03</b>
	Manganese	0	0	0.122	0	0	0	<b>0.12</b>
Mercury	0	0	0	0	0	4.70E-06	<b>4.70E-06</b>	
Nickel	0	0	0	0	0	2.60E-05	<b>2.60E-05</b>	
Selenium	0	0	0	0	0	0	<b>0</b>	
	<b>Total HAPs</b>	4.90E-03	0.019	0.122	2.02E-03	0	0.023	<b>0.17</b>
	<b>"Worst" Single HAP</b>	2.42E-03 (benzene)	0.007 (xylenes)	0.122 (manganese)	2.02E-03 (lead)	n/a	0.022 (hexane)	<b>0.12</b> (manganese)

Total emissions are based on rated capacity at 8,760 hours/year, with the exception of the emergency generators which are calculated at 500 hours per year.  
mult. = multiple units

**Appendix A.1: Unlimited Emissions Calculations**  
**Correctional Industrial Facility (CIF)**  
**Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from**  
**Large Reciprocating Internal Combustion Engines - Diesel Fuel**  
**Output Rating (>600 HP)**  
**Maximum Input Rate (>4.2 MMBtu/hr)**  
**CIF Generators G-2 and G-3**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Unit	Horsepower
CIF G-2	890.0
CIF G-3	890.0
<b>Total</b>	<b>1,780.0</b>

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	1,780.0
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	890,000

Maximum Diesel Fuel Usage (gal/yr)	45,464
Sulfur Content (S) of Fuel (% by weight)	0.50

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03 (.00809S)	2.40E-02 **see below	7.05E-04	5.50E-03
Potential Emission in tons/yr	0.31	0.18	0.18	1.80	10.68	0.31	2.45

\*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Maximum Diesel Fuel Usage (gal/yr) = [Potential Throughput (hp-hr/yr) \* (average brake specific fuel consumption of 7,000 Btu / hp-hr) \* 1/(diesel heating value of 19,300 Btu/lb) \* 1/(diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1))]

**Hazardous Air Pollutants (HAPs)**

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	2.42E-03	8.75E-04	6.01E-04	2.46E-04	7.85E-05	2.45E-05	6.60E-04

\*\*\*PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

\*\*\*\*Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>4.90E-03</b>
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**Methodology**

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4.

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] \* [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] \* [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

icdsl600.xls 9/95  
updated 10/2014

**Appendix A.1: Unlimited Emissions Calculations**  
**Correctional Industrial Facility (CIF)**  
**Volatile Organic Compounds and Hazardous Air Pollutants (HAPs)**  
**from the Gasoline Fuel Transfer and Dispensing (GDF) Operation**

**Company Name:** Pendleton Correctional Facility  
**Source Address:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit Number:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

To calculate evaporative emissions from the gasoline dispensing fuel transfer and dispensing operation emission factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids were used. The total potential emission of VOC is as follows:

Gasoline Throughput =  $\frac{20.4}{7.45}$  gallons/day  
Gasoline Throughput =  $\frac{20.4}{7.45}$  kgal/yr

**Volatile Organic Compounds**

Emission Source	Emission Factor (lb/kgal of throughput)*	PTE of VOC (tons/yr)
Filling storage tank (submerged filling)	7.30	0.0272
Tank breathing and emptying	1.00	0.0037
Vehicle refueling (displaced losses - uncontrolled)	11.00	0.0410
Spillage	0.70	0.0026
<b>Total</b>		<b>0.07</b>

The potential to emit (PTE) Hazardous Air Pollutants (HAPs) were estimated using published gasoline data and assuming that the HAP % composition of the gasoline vapor is similar to the HAP % composition in liquid gasoline.

**Hazardous Air Pollutants (HAPs)**

Volatile Organic HAP	CAS#	HAP Content for Gasoline (% by weight)**	PTE of HAP (tons/yr)
1,3-Butadiene	106-99-0	3.70E-5%	2.8E-06
2,2,4-Trimethylpentane	540-84-1	2.40%	1.8E-03
Benzene	71-43-2	1.90%	1.4E-03
Ethylbenzene	100-41-4	1.70%	1.3E-03
n-Hexane	110-54-3	2.40%	1.8E-03
Methyl-tert-butylether	1634-04-4	0.33%	2.5E-04
Naphthalene	91-20-3	0.25%	1.9E-04
Toluene	108-88-3	8.10%	6.0E-03
Total Xylenes	1330-20-7	9.00%	6.7E-03

**Total PTE of HAPs (tons/yr)      0.02**  
**PTE of Worst Single HAP (tons/yr)      0.01      (xylenes)**

**Methodology**

\*Emission Factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids (dated 6/08), Table 5.2-7.

\*\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehsfoundation.org/Publications.aspx>

The gasoline throughput was provided by the source.

Gasoline Throughput (kgal/yr) = [Gasoline Throughput (gallons/day)] \* [365 days/yr] \* [kgal/1000 gal]

PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)] \* [Emission Factor (lb/kgal)] \* [ton/2000 lb]

PTE of HAP (tons/yr) = [HAP Content of Gasoline (% by weight)] \* [PTE of VOC (tons/yr)]

**Abbreviations**

VOC = Volatile Organic Compounds

HAP = Hazardous Air Pollutant

PTE = Potential to Emit



**Appendix A.1: Unlimited Emissions Calculations  
Correctional Industrial Facility (CIF)  
Particulate and Hazardous Air Pollutant (HAP) Emissions  
from the Welding Operations**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	Max. electrode consumption per station (lbs/day)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM <sub>10</sub>	Mn	Ni	Cr	PM = PM <sub>10</sub>	Mn	Ni	Cr	
<b>WELDING</b>												
Submerged Arc (SAW)	3	0.84	20.2	0.036	0.011			0.091	0.028	0	0	0.028
Metal Inert Gas (MIG)(carbon steel)	0	0	0	5.50E-03	5.00E-04			0.00E+00	0.00E+00	0	0	0.00E+00
Tungsten Inert Gas (TIG)(carbon steel)	0	0	0	5.50E-03	5.00E-04			0.00E+00	0.00E+00	0	0	0.00E+00
<b>EMISSION TOTALS</b>												
<b>Potential Emissions lbs/hr</b>								0.09	0.03	0	0	0.03
<b>Potential Emissions lbs/day</b>								2.18	0.67	0	0	0.67
<b>Potential Emissions tons/year</b>								0.40	0.12	0	0	0.12

**METHODOLOGY**

Max. electrode consumption per station (lbs/day) = [Max. electrode consumption per station (lbs/hr) \* 24 hrs/day]  
 \*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.  
 Max electrode consumption based on 15 rolls per month, 33 lbs per roll, 28 days per month, and 21 hours per day  
 Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick  
 Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)  
 Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day  
 Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.  
 PM=PM10=PM2.5

**326 IAC 6-3-2(e) ALLOWABLE RATE OF EMISSIONS**

Pursuant to 326 IAC 6-3-1(b)(9), welding processes that consume less than six hundred twenty-five (625) pounds of rod or wire per day are exempt from this rule.

= 0.84 lbs/hr \* 24 hrs/day = 20.2 lbs/day

**Appendix A.1: Unlimited Emissions Calculations  
Correctional Industrial Facility (CIF)  
Particulate and Hazardous Air Pollutant (HAP) Emissions  
from the Grinding Operations (CIF-MGS1 through CIF-MGS3)**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Process:	Max Material Throughput Rate		Particulates					HAPs	
			Emission Factor *		Potential to Emit			Lead Content (%) **	PTE of Lead (tons/year)
	(lbs/hr)	(tons iron/hr)	PM (lbs/ton)	PM10/PM2.5 (lbs/ton)	PM (lbs/hr)	PM (tons/yr)	PM10/PM2.5 (tons/yr)		
3 Grinders	1200	0.6	0.01	0.0045	0.006	0.03	1.18E-02	7.70%	2.02E-03
<b>Total</b>			<b>0.03</b>			<b>0.01</b>		<b>2.02E-03</b>	

The max [combined] throughput is based on a rate of 1,800 brake shoes processed per day, a shoe weight of 14 lbs, and 21 hours of operation per day.

\* Emission factors are from FIRE Volume II, Chapter 14, Grey Iron Foundries > Castings Finishing - SCC 3-04-003-60 (July, 2001)

\*\* Lead Emission are based on the lab test conducted by Precision Process Division in Walkerton, Indiana  
 In the absence of valid PM2.5 Emission Factors, it is assumed that PM2.5 emissions = PM10 emissions.

**Methodology**

Max Throughput Rate (tons iron/hr) = [Max Throughput Rate (lbs iron/hr) \* 1 ton/2000 lbs]

PTE PM (lbs/hr) = [Max. Throughput Rate (tons/hour) \* PM Emission Factor (lbs/ton)]

PTE PM/PM-10 (tons/yr) = [Max. Throughput Rate (tons/hr) \* Emission Factor (lbs/ton) \* 8760 hours/year \* 1 ton/2000 lbs]

PTE Lead (tons/yr) = [Max. Throughput Rate (tons/hr) \* PM Emission Factor (lbs/ton) \* 8760 hours/year \* 1 ton/2000 lbs \* Lead Content (%)]

**Appendix A.1: Unlimited Emissions Calculations  
Correctional Industrial Facility (CIF)  
Particulate and Volatile Organic Compound (VOC) Emissions  
from the C&C Machine Reservoirs**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Material	# of Identical Machines	VOC Content (lbs/gal)	Max Gal of Mat. Per Machine (gal/yr)	Potential VOC (tons/yr)
QuakerCool 2778 AE	2	1.053	75.00	0.08

**Notes:**

The coolant is flooded across the cutting surface, therefore the method of application is flow coating. The transfer efficiency, from Air Pollution Engineering Manual, Second Edition, AP-40, U. S. Environmental Protection Agency, Research Triangle Park, NC, May 1973 (pg 859 - 861), is 100% for flow coating application methods. Therefore, particulate emissions are assumed negligible.

The MSDS for QuakerCool does not list any HAPs or show a % solids.

**Methodology:**

$$\text{PTE VOC (tons/yr)} = (\text{VOC Content (lbs/gal)}) * (\text{Max Gal of Mat per Machine (gal/yr)}) * (\text{\# of Machines}) / (2000 \text{ lbs/ton})$$

**Appendix A.1: Unlimited Emissions Calculations**  
**Correctional Industrial Facility (CIF)**  
**Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from**  
**Insignificant Natural Gas-Fired Combustion Units**  
**with a maximum heat input capacity <100 MMBtu/hr, each**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Location	Eqmnt Name	ID	MMBtu/hr
Laundry	Dryer 1	B-38	0.3
Laundry	Dryer 2	B-39	0.3
Laundry	Dryer 3	B-40	0.3
Laundry	Dryer 4	B-41	0.3
Laundry	Dryer 5	B-42	0.3
Food Service	Oven 1	B-44	0.06
Food Service	Oven 2	B-45	0.06
Food Service	Oven 3	B-46	0.06
Food Service	Oven 4	B-47	0.06

Location	Eqmnt Name	ID	MMBtu/hr
Food Service	Oven 5	B-48	0.06
Food Service	Oven 6	B-49	0.06
Food Service	Oven 7	B-50	0.06
Food Service	Oven 8	B-51	0.06
Food Service	Griddle 1	B-52	0.162
Food Service	Griddle 2	B-53	0.162
Food Service	Griddle 3	B-54	0.162
Food Service	Griddle 4	B-55	0.162
Food Service	Large Oven 1	B-56	0.25
<b>Total</b>			<b>2.878</b>

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
2.9	1020	24.7

Emission Factor in lb/MMCF	Pollutant					VOC	CO
	PM*	PM10*	PM2.5	SO <sub>2</sub>	NOx		
	1.9	7.6	7.6	0.6	100.0	5.5	84.0
					**see below		
Potential Emission in tons/yr	0.02	0.09	0.09	0.01	1.24	0.07	1.04

\*PM emission factor is filterable PM only. PM10 & PM2.5 emission factors are filterable and condensable fractions combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**HAPs Emissions**

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.60E-05	1.48E-05	9.27E-04	2.22E-02	4.20E-05

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	6.18E-06	1.36E-05	1.73E-05	4.70E-06	2.60E-05

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

updated 10/2014

**Appendix A.1: Unlimited Emissions Calculations  
Pendleton Juvenile Correctional Facility (PJCF) Emission Summary**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road,  
 Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Uncontrolled Potential Emissions (tons/year)				
Category	Pollutant	Emissions Generating Activity		TOTAL
		Diesel-fired Emergency Generator (G-4)	Insignificant Natural Gas Combustion Units	
Criteria Pollutants	PM	0.33	0.16	0.49
	PM10	0.19	0.64	0.83
	PM2.5	0.19	0.64	0.83
	SO2	1.92	0.05	1.97
	NOx	11.40	8.38	19.78
	VOC	0.33	0.46	0.80
	CO	2.61	7.04	9.65
Hazardous Air Pollutants	1,3-Butadiene	0	0	0.00E+00
	1,6-hexamethyldiisocyanate	0	0	0
	1,2,4-Trimethyl benzene	0	0	0
	2,2,4-Trimethylpentane	0	0	0.00E+00
	Acetaldehyde	8.38E-05	0	8.38E-05
	Acrolein	2.62E-05	0	2.62E-05
	Benzene	2.58E-03	1.76E-04	2.76E-03
	N-Butyl acetate	0	0	0.00E+00
	Cumene	0	0	0
	Dichlorobenzene	0	1.01E-04	1.01E-04
	Ethylbenzene	0	0	0.00E+00
	Formaldehyde	2.62E-04	6.28E-03	6.55E-03
	Glycol Ethers	0	0	0
	Hexane	0	0.15	0.15
	HCL	0	0	0
	Isophorone diisocyanate	0	0	0
	Methanol	0	0	0
	Methyl-tert-butylether	0	0	0.00E+00
	MIBK	0	0	0
	Napthalene	0	0	0.00E+00
	Styrene	0	0	0
	Toluene	9.34E-04	2.85E-04	1.22E-03
	Total PAH HAPs	7.05E-04	0	7.05E-04
	Polycyclic Organic Matter	0	0	0
	Xylenes	6.42E-04	0	6.42E-04
	Arsenic	0	0	0
	Beryllium	0	0	0
	Cadmium	0	9.22E-05	9.22E-05
	Chromium	0	1.17E-04	1.17E-04
	Cobalt Compounds	0	0	0
	Lead	0	4.19E-05	4.19E-05
	Manganese	0	3.18E-05	3.18E-05
Mercury	0	0	0	
Nickel	0	1.76E-04	1.76E-04	
Selenium	0	0	0	
<b>Total HAPs</b>		<b>5.23E-03</b>	<b>0.16</b>	<b>0.16</b>
<b>"Worst" Single HAP</b>		<b>2.58E-03 (benzene)</b>	<b>0.15 (hexane)</b>	<b>0.15 (hexane)</b>

Total emissions are based on rated capacity at 8,760 hours/year, with the exception of the emergency generator, which is calculated at 500 hours per year.

**Pendleton Juvenile Correctional Facility (PJCF)  
Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from  
Large Reciprocating Internal Combustion Engines - Diesel Fuel  
Output Rating (>600 HP)  
Maximum Input Rate (>4.2 MMBtu/hr)  
PJCF Generator G-4**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit Number:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	1,900.0	Maximum Diesel Fuel Usage (gal/yr)	48,530
Maximum Hours Operated per Year	500	Sulfur Content (S) of Fuel (% by weight)	0.50
Potential Throughput (hp-hr/yr)	950,000		

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03 (.00809S)	2.40E-02 **see below	7.05E-04	5.50E-03
Potential Emission in tons/yr	0.33	0.19	0.19	1.92	11.40	0.33	2.61

\*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Maximum Diesel Fuel Usage (gal/yr) = [Potential Throughput (hp-hr/yr) \* (average brake specific fuel consumption of 7,000 Btu / hp-hr) \* 1/(diesel heating value of 19,300 Btu/lb) \* 1/(diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1))]

**Hazardous Air Pollutants (HAPs)**

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	2.58E-03	9.34E-04	6.42E-04	2.62E-04	8.38E-05	2.62E-05	7.05E-04

\*\*\*PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

\*\*\*\*Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>5.23E-03</b>
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**Methodology**

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1 , 3.4-2, 3.4-3, and 3.4-4.

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] \* [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] \* [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

**Appendix A.1: Unlimited Emissions Calculations  
Pendleton Juvenile Correctional Facility (PJCF)  
Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from  
Insignificant Natural Gas-Fired Combustion Units  
with a maximum heat input capacity <100 MMBtu/hr, each**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Location	Eqmnt Name	ID	MMBtu/hr
Services	Hot Water Boiler 1	B-6	1.44
Services	Hot Water Boiler 2	B-7	1.44
Building A	Boiler 1	B-8	0.25
Building A	Boiler 2	B-9	0.25
Building B	Boiler 1	B-10	0.25
Building B	Boiler 2	B-11	0.25
Building C	Boiler 1	B-12	0.25
Building C	Boiler 2	B-13	0.25
Building E	Boiler 1	B-14	0.25
Building E	Boiler 2	B-15	0.25
Programs	Boiler 1	B-16	1.44
Programs	Boiler 2	B-17	1.44

Location	Eqmnt Name	ID	MMBtu/hr
Administration	Hot Water Boiler 1	B-18	0.5
Administration	Hot Water Boiler 2	B-19	0.5
Services	Kitchen Hot Water Heater	B-30	1.26
Services	Med & Sleep Hot Water Heater	B-31	0.99
Services	Laundry Hot Water Heater	B-32	1.26
Building A	Water Heater 1	B-33	1.26
Building B	Water Heater 1	B-34	1.26
Building C	Water Heater 1	B-35	1.26
Building E	Water Heater 1	B-36	1.26
Programs	Water Heater 1	B-37	1.8
Services	Dryer 1	B-43	0.3
Maintenance	Air Handling Unit 1	B-57	0.1
<b>Total</b>			<b>19.51</b>

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
19.5	1020	167.6

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5*	SO <sub>2</sub>	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100.0	5.5	84.0
					**see below		
Potential Emission in tons/yr	0.16	0.64	0.64	0.05	8.38	0.46	7.04

\*PM emission factor is filterable PM only. PM10 & PM2.5 emission factors are filterable and condensable fractions combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

#### HAPs Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.76E-04	1.01E-04	6.28E-03	0.15	2.85E-04

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	4.19E-05	9.22E-05	1.17E-04	3.18E-05	1.76E-04

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

updated 10/2014

**Appendix A.2: Limited Emissions Calculations  
Entire Source Emission Summary**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

		Potential To Emit of the Entire Source After Issuance of the Renewal (tons/year)																	
		Emissions Generating Activity																	
Category	Pollutant	Pendleton Correctional Facility (IR)								Correctional Industrial Facility (CIF)						Pendleton Juvenile Correctional Facility (PJCF)		TOTAL	
		Boiler (1) (B-1)	Boilers (1) (B-2 & B-3) (B-4 & B-5)	Wood Chip and Ash Handling (mult.)	Diesel-fired Emergency Generator (G-1)	Autobody Refinishing Operation (IR-ARO)	Cold Cleaner Degreaser Units (Parts Washers)	Gasoline Dispensing Facility (IR-GDF)	Welding (mult.)	Insignificant Natural Gas Combustion Units	Diesel-fired Emergency Generators (G-2 & G-3)	Gasoline Dispensing Facility (CIF-GDF)	Welding (mult.)	Grinding (mult.)	CNC Machining (coolant)	Insignificant Natural Gas Combustion Units	Diesel-fired Emergency Generator (G-4)		Insignificant Natural Gas Combustion Units
Criteria Pollutants	PM	51.13	7.89	22.11	0.51	0.37	0	0.33	0.01	0.31	0	0.40	0.03	0	0.02	0.33	0.16	83.60	
	PM10	48.19	16.43	8.05	0.29	0.37	0	0.33	0.03	0.18	0	0.40	0.01	0	0.09	0.19	0.64	75.20	
	PM2.5	41.80	16.43	8.05	0.29	0.37	0	0.33	0.03	0.18	0	0.40	0.01	0	0.09	0.19	0.64	68.81	
	SO2	92.26	0	0	2.95	0	0	0	2.49E-03	1.80	0	0	0	0	0.01	1.92	0.05	99.00	
	NOx	49.36	0	0	17.53	0	0	0	0.41	10.68	0	0	0	0	1.24	11.40	8.38	99.00	
	VOC	2.17	6.63	0	0.52	3.00	0.24	0.07	0	0.31	0.07	0	0	0.08	0.07	0.33	0.46	13.99	
	CO	81.50	0	0	4.02	0	0	0	0.35	2.45	0	0	0	0	1.04	2.61	7.04	99.00	
	Hazardous Air Pollutants	1,3-Butadiene	0	0	0	0	0	0	2.76E-06	0	0	2.76E-06	0	0	0	0	0	0	5.51E-06
1,6-hexamethyldisocyanate		0	0	0	0	1.87E-03	0	0	0	0	0	0	0	0	0	0	0	1.87E-03	
1,2,4-trimethyl benzene		0	0	0	0	0.04	0	0	0	0	0	0	0	0	0	0	0	0.04	
2,2,4-Trimethylpentane		0	0	0	0	0	0	1.79E-03	0	0	1.79E-03	0	0	0	0	0	0	3.57E-03	
Acetaldehyde		0.11	0	0	1.29E-04	0	0	0	0	7.85E-05	0	0	0	0	0	8.38E-05	0	0.11	
Acrolein		0.51	0	0	4.03E-05	0	0	0	0	2.45E-05	0	0	0	0	0	2.62E-05	0	0.51	
Benzene		0.54	2.53E-03	0	3.97E-03	0	0	1.41E-03	0	8.71E-06	2.42E-03	1.41E-03	0	0	2.60E-05	2.58E-03	1.76E-04	0.55	
N-Butyl acetate		0	0	0	0.08	0	0	0	0	0	0	0	0	0	0	0	0	0.08	
Cumene		0	0	0	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0.04	
Dichlorobenzene		0	1.45E-03	0	0	0	0	0	0	4.98E-06	0	0	0	0	1.48E-05	0	1.01E-04	1.57E-03	
Ethylbenzene		0	0	0	0.24	1.11E-03	1.27E-03	0	0	0	1.27E-03	0	0	0	0	0	0	0.24	
Formaldehyde		0.56	0.25	0	4.03E-04	0	0	0	0	3.11E-04	2.46E-04	0	0	0	9.27E-04	2.62E-04	6.28E-03	0.82	
Glycol Ethers		0	0	0	0.15	0	0	0	0	0	0	0	0	0	0	0	0	0.15	
Hexane		0	2.17	0	0	0	0	1.79E-03	0	7.47E-03	0	1.79E-03	0	0	0.022	0	0.15	2.36	
HCL		2.43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.43	
Isophorone diisocyanate		0	0	0	0	4.66E-03	0	0	0	0	0	0	0	0	0	0	0	4.66E-03	
Methanol		0	0	0	0.06	0.03	0	0	0	0	0	0	0	0	0	0	0	0.09	
Methyl-tert-butylether		0	0	0	0	0	0	2.46E-04	0	0	2.46E-04	0	0	0	0	0	0	4.91E-04	
MIK		0	0	0	0.84	0	0	0	0	0	0	0	0	0	0	0	0	0.84	
Napthalene		0	0	0	0.01	0	0	1.86E-04	0	0	1.86E-04	0	0	0	0	0	0	0.02	
Styrene		0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.24	
Toluene		0.12	4.10E-03	0	1.44E-03	0.45	0.03	6.03E-03	0	1.41E-05	8.75E-04	6.03E-03	0	0	4.20E-05	9.34E-04	2.85E-04	0.62	
Total PAH HAPs		0	0	0	1.08E-03	0	0	0	0	6.60E-04	0	0	0	0	0	7.05E-04	0	2.45E-03	
Polycyclic Organic Matter		0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	
Xylenes		0	0	0	9.87E-04	0.90	5.85E-03	6.70E-03	0	6.01E-04	6.70E-03	0	0	0	0	6.42E-04	0	0.92	
Arsenic		0	1.96E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.96E-03	
Beryllium		0	1.36E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.36E-03	
Cadmium		0	2.19E-03	0	0	0	0	0	0	4.56E-06	0	0	0	0	1.36E-05	0	9.22E-05	2.30E-03	
Chromium		0	2.42E-03	0	0	0	0	0	0	5.81E-06	0	0	0	0	1.73E-05	0	1.17E-04	2.56E-03	
Cobalt Compounds		0	0	0	0	3.96E-03	0	0	0	0	0	0	0	0	0	0	0	3.96E-03	
Lead		0	4.44E-03	0	0	0	0	0	0	2.07E-06	0	0	2.02E-03	0	6.18E-06	0	4.19E-05	6.51E-03	
Manganese		0.20	2.99E-03	0	0	0	0	0	0.07	1.58E-06	0	0.12	0	0	4.70E-06	0	3.18E-05	0.40	
Mercury		0	1.55E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.55E-03	
Nickel		0	2.96E-03	0	0	0	0	0	0	8.71E-06	0	0	0	0	2.60E-05	0	1.76E-04	3.17E-03	
Selenium		0	6.78E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.78E-03	
<b>Total HAPs</b>		4.71	2.47	0	8.05E-03	2.81	0.07	0.02	0.07	7.83E-03	4.90E-03	0.019	0.122	2.02E-03	0	0.023	5.23E-03	0.16	<b>10.50</b>
<b>"Worst" Single HAP</b>		2.43	2.17	n/a	3.97E-03	0.90	0.03	6.70E-03	0.07	7.47E-03	2.42E-03	0.007	0.122	2.02E-03	n/a	0.022	2.58E-03	0.15	<b>2.43</b>
			(HCL)	(hexane)	(benzene)	(xylenes)	(toluene)	(xylenes)	(manganese)	(hexane)	(benzene)	(xylenes)	(manganese)	(lead)	(hexane)	(benzene)	(hexane)	(HCL)	

Total emissions are based on rated capacity at 8,760 hours/year, with the exception of the emergency generators which are calculated at 500 hours per year, and the boilers which are limited as follows:

(1) Limited PTE based upon annual SO2, NOx, and CO emissions limits to comply with 326 IAC 2-8 (FESOP), and render 326 IAC 2-2 (PSD) not applicable.

Note: Although, the annual SO2, NOx, and CO emissions limits will have an effect on the emissions of PM, PM10, PM2.5, VOC, and HAPs, there is no way to characterize the reduction to these pollutants. Therefore, the PM, PM10, PM2.5, VOC, and HAPs emissions reflect the unlimited/ uncontrolled emissions from the boilers.



**Appendix A.2: Limited Emissions Calculations  
Pendleton Correctional Facility (IR) Emission Summary**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Potential To Emit of the Pendleton Correctional Facility (IR) After Issuance of the Renewal (tons/year)											
Category	Pollutant	Emissions Generating Activity									TOTAL
		Boiler <sup>(1)</sup> (B-1)	Boilers <sup>(1)</sup> (B-2 & B-3) (B-4 & B-5)	Biomass Handling (mult.)	Diesel-fired Emergency Generator (G-1)	Autobody Refinishing Operation (IR-ARO)	Cold Cleaner Degreaser Units (Parts Washers)	Gasoline Dispensing Facility (IR-GDF)	Welding (mult.)	Insignificant Natural Gas Combustion Units	
Criteria Pollutants	PM	51.13	7.89	22.11	0.51	0.37	0	0	0.33	0.01	82.34
	PM10	48.19	16.43	8.05	0.29	0.37	0	0	0.33	0.03	73.69
	PM2.5	41.80	16.43	8.05	0.29	0.37	0	0	0.33	0.03	67.30
	SO2	92.26		0	2.95	0	0	0	0	2.49E-03	95.22
	NOx	49.36		0	17.53	0	0	0	0	0.41	67.31
	VOC	2.17	6.63	0	0.52	3.00	0.24	0.07	0	0.02	12.66
	CO	81.50		0	4.02	0	0	0	0	0.35	85.86
	Hazardous Air Pollutants	1,3-Butadiene	0	0	0	0	0	0	2.76E-06	0	0
1,6-hexamethyldiisocyanate		0	0	0	0	1.87E-03	0	0	0	0	1.87E-03
1,2,4-trimethyl benzene		0	0	0	0	0.04	0	0	0	0	0.04
2,2,4-Trimethylpentane		0	0	0	0	0	0	1.79E-03	0	0	1.79E-03
Acetaldehyde		0.11	0	0	1.29E-04	0	0	0	0	0	0.11
Acrolein		0.51	0	0	4.03E-05	0	0	0	0	0	0.51
Benzene		0.54	2.53E-03	0	3.97E-03	0	0	1.41E-03	0	8.71E-06	5.45E-01
N-Butyl acetate		0	0	0	0	0.08	0	0	0	0	0.08
Cumene		0	0	0	0	0.04	0	0	0	0	0.04
Dichlorobenzene		0	1.45E-03	0	0	0	0	0	0	4.98E-06	1.45E-03
Ethylbenzene		0	0	0	0	0.24	1.11E-03	1.27E-03	0	0	0.24
Formaldehyde		0.56	0.25	0	4.03E-04	0	0	0	0	3.11E-04	0.82
Glycol Ethers		0	0	0	0	0.15	0	0	0	0	0.15
Hexane		0	2.17	0	0	0	0	1.79E-03	0	7.47E-03	2.18
HCL		2.43	0	0	0	0	0	0	0	0	2.43
Isophorone diisocyanate		0	0	0	0	4.66E-03	0	0	0	0	4.66E-03
Methanol		0	0	0	0	0.06	0.026	0	0	0	0.09
Methyl-tert-butylether		0	0	0	0	0	0	2.46E-04	0	0	2.46E-04
MIBK		0	0	0	0	0.84	0	0	0	0	0.84
Napthalene		0	0	0	0	0.01	0	1.86E-04	0	0	1.48E-02
Styrene		0.24	0	0	0	0	0	0	0	0	0.24
Toluene		0.12	4.10E-03	0	1.44E-03	0.45	0.034	6.03E-03	0	1.41E-05	0.61
Total PAH HAPs		0	0	0	1.08E-03	0	0	0	0	0	1.08E-03
Polycyclic Organic Matter		0	1.06E-02	0	0	0	0	0	0	0	0.01
Xylenes		0	0	0	9.87E-04	0.90	5.85E-03	6.70E-03	0	0	0.91
Arsenic		0	1.96E-03	0	0	0	0	0	0	0	1.96E-03
Beryllium		0	1.36E-03	0	0	0	0	0	0	0	1.36E-03
Cadmium		0	2.19E-03	0	0	0	0	0	0	4.56E-06	2.20E-03
Chromium		0	2.42E-03	0	0	0	0	0	0	5.81E-06	2.43E-03
Cobalt Compounds		0	0	0	0	0.00	0	0	0	0	3.96E-03
Lead		0	4.44E-03	0	0	0	0	0	0	2.07E-06	4.44E-03
Manganese		0.20	2.99E-03	0	0	0	0	0	0.07	1.58E-06	0.28
Mercury	0	1.55E-03	0	0	0	0	0	0	0	0.00	
Nickel	0	2.96E-03	0	0	0	0	0	0	8.71E-06	2.97E-03	
Selenium	0	6.78E-03	0	0	0	0	0	0	0	6.78E-03	
<b>Total HAPs</b>	<b>4.71</b>	<b>2.47</b>	<b>0</b>	<b>8.05E-03</b>	<b>2.81</b>	<b>0.07</b>	<b>0.02</b>	<b>0.07</b>	<b>7.83E-03</b>	<b>10.17</b>	
<b>"Worst" Single HAP</b>	<b>2.43</b> (HCL)	<b>2.17</b> (hexane)	<b>n/a</b>	<b>3.97E-03</b> (benzene)	<b>0.90</b> (xylenes)	<b>0.03</b> (toluene)	<b>0.01</b> (xylenes)	<b>0.07</b> (manganese)	<b>7.47E-03</b> (hexane)	<b>2.43</b> (HCL)	

Total emissions are based on rated capacity at 8,760 hours/year, with the exception of the emergency generators which are calculated at 500 hours per year, and the boilers which are limited as follows:

(1) Limited PTE based upon annual SO2, NOx, and CO emissions limits to comply with 326 IAC 2-8 (FESOP), and render 326 IAC 2-2 (PSD) not applicable.

Note: Although, the annual SO2, NOx, and CO emissions limits will have an effect on the emissions of PM, PM10, PM2.5, VOC, and HAPs, there is no way to characterize the reduction to these pollutants. Therefore, the PM, PM10, PM2.5, VOC, and HAPs emissions reflect the unlimited/ uncontrolled emissions from the boilers.

**Appendix A.2: Limited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Particulate Emissions from the  
Wood Chips (Biomass) and Ash Handling Operations**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

	<b>Biomass Unloading/Receiving</b>	<b>Biomass Headhouse and Internal Handling (legs/belts, distributor, etc)</b>	<b>Ash Internal Handling (auger, container)</b>	<b>Biomass Storage bin (vent)</b>
Throughput (lbs/hr)	18,400	3,000	500	220,000
<b>Throughput (tons/hr)</b>	<b>9.2</b>	<b>1.5</b>	<b>0.25</b>	<b>110.0</b>

<b>Unloading/Receiving Emission Factors (lbs/ton)</b>							
<b>Straight Truck</b>		<b>Hopper Truck</b>		<b>Railcar</b>		<b>Barge/Ship</b>	
PM	PM <sub>10</sub>	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>
0.18	0.059	0.035	0.0078	0.032	0.0078	0.15	0.038

"Worst-case" Emission Factors Representing this source = 

PM =	0.18
------	------

 (lbs/ton)      

PM <sub>10</sub> =	0.059
--------------------	-------

 (lbs/ton)

	<b>Biomass Unloading/Receiving</b>		<b>Biomass Headhouse and Internal Handling (legs/belts, distributor, etc)</b>		<b>Ash Internal Handling (auger, container)</b>		<b>Biomass Storage bin (vent)</b>	
	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>
Emission Factor (lbs/ton)	0.18	0.059	0.061	0.034	2.2	2.2	0.025	0.0063
Potential Emissions (tons/yr)	7.25	2.38	0.40	0.22	2.41	2.41	12.05	3.04
Controls (overall % efficiency)	0%	0%	<b>Baghouse</b> 90%		0%	0%	<b>Baghouse</b> 90%	
Controlled Potential Emissions (tons/yr)	7.25	2.38	0.04	0.02	2.41	2.41	1.20	0.30

	<b>PM</b>	<b>PM10</b>
<b>Total Uncontrolled Emissions (tons/yr)</b>	<b>22.11</b>	<b>8.05</b>
<b>Total Controlled Emissions (tons/yr)</b>	<b>10.91</b>	<b>5.11</b>

**Methodology**

Emission factors are from AP-42 Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (Supplement D, 5/98)  
Potential Emissions (tons/yr) = Potential Emissions (tons/yr) \* (1-Control Efficiency)

**Notes**

In the absence of valid PM<sub>2.5</sub> Emission Factors, it is assumed that PM<sub>2.5</sub> emissions = PM<sub>10</sub> emissions.  
The maximum storage capacity of the storage silo is 220,000 pounds of wood chips. Therefore, 220,000 lbs \* 1 ton/2,000 lbs = 110 tons.  
The truck unloading operation can process a maximum of 18,400 pounds of wood chips/hr. Therefore, 18,400 lbs/hr \* 1 ton/2,000 lbs = 9.20 tons/hr.  
The biomass handling system can process a maximum of 3,000 pounds of wood chips per hour. Therefore, 3,000 lbs/hr \* 1 ton/2,000 lbs = 1.5 tons/hr.  
The ash disposal system is capable of processing a maximum of 500 pounds of ash per hour. Therefore, 500 lbs/hr \* 1 ton/2,000 lbs = 0.25 tons/hr.  
To form a conservative estimate when calculating potential emissions from the Bin Vent, it has been assumed that it takes only 1 hr to completely load the storage silo.

**Appendix A.2: Limited Emissions Calculations**  
**Pendleton Correctional Facility (IR)**  
**Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from**  
**Large Reciprocating Internal Combustion Engines - Diesel Fuel**  
**Output Rating (>600 HP)**  
**Maximum Input Rate (>4.2 MMBtu/hr)**  
**IR Generator G-1**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit Number:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	2,922.0	Maximum Diesel Fuel Usage (gal/yr)	74,633
Maximum Hours Operated per Year	500	Sulfur Content (S) of Fuel (% by weight)	0.50
Potential Throughput (hp-hr/yr)	1,461,000		

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03 (.00809S)	2.40E-02 **see below	7.05E-04	5.50E-03
Potential Emission in tons/yr	0.51	0.29	0.29	2.95	17.53	0.52	4.02

\*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Maximum Diesel Fuel Usage (gal/yr) = [Potential Throughput (hp-hr/yr) \* (average brake specific fuel consumption of 7,000 Btu / hp-hr) \* 1 / (diesel heating value of 19,300 Btu/lb) \* 1 / (diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1))]

**Hazardous Air Pollutants (HAPs)**

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	3.97E-03	1.44E-03	9.87E-04	4.03E-04	1.29E-04	4.03E-05	1.08E-03

\*\*\*PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

\*\*\*\*Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>8.05E-03</b>
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**Methodology**

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] \* [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] \* [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

icdsl600.xls 9/95  
updated 10/2014

**Appendix A.2: Limited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Particulate and Volatile Organic Compound (VOC) Emissions  
From the Autobody Refinishing Operation (IR-ARO)**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Material		Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water & Exempt Solvents	Weight % Organics	Volume % Water & Exempt Solvents	Volume % Non-Volatiles (solids)	Max Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water & exempt solvents	Pounds VOC per gallon of coating	VOC Potential (ton/yr)	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Basecoat	435-93	7.01	87.48%	0.50%	86.98%	0.50%	8.84%	0.04	6.13	6.10	0.96	0.03	68.97	75%
Clearcoat	401-20	8.09	58.62%	0.52%	58.10%	0.52%	34.28%	0.04	4.72	4.70	0.74	0.13	13.71	75%
Acrylic Enamel	418-01	8.01	58.68%	0.07%	58.61%	0.07%	33.95%	0.04	4.70	4.70	0.74	0.13	13.83	75%
Reducer	483-54	8.14	99.51%	0.06%	99.45%	0.06%	0.94%	0.01	8.10	8.10	0.35	4.37E-04	861.17	75%
Basemaker	7770S	10.86	42.36%	0.05%	42.31%	0.05%	34.50%	0.01	4.60	4.60	0.20	0.07	13.32	75%
								Total Maximum Material Usage (gal/hr) =	0.13	<b>Total PTE (tons/yr)</b>		<b>3.00</b>	<b>0.37</b>	
								Total Maximum Material Usage (gal/day) =	3.08					
								Total Maximum Material Usage (gal/yr) =	1,123					

**NOTES**

Add worst case coating to all solvents

Emissions for each coating category (i.e., base coat, etc...) were calculated using the coating with the highest VOC content.

Transfer efficiency for the autobody shop is estimated to be 75%, based on the transfer efficiency of airless spray coating for flat surface.

PM10 & PM2.5 emissions are each assumed equal to PM emissions

Note: The paint shop involves manual application of coatings using brush application for the purposes of maintenance of the facility. Therefore, emissions are not counted towards the PTE, and 326 IAC 6-3-2 and 326 IAC 8 limitations and requirements do not apply.

**METHODOLOGY**

Weight % Volatile (H2O & Organics) = 100% - Weight % Non-Volatiles (solids)

Weight % Organics = Weight % Volatile (H2O & Organics) - Weight % Water & Exempt Solvents

Volume % Water & Exempt Solvents = Data not available. Is assumed equal to the Weight % Water & Exempt Solvents.

Volume % Non-Volatiles (solids) taken directly from MSDSs supplied by the source

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds VOC per gallon of coating = (Density (lb/gal) \* Weight % Organics)

VOC Potential (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) \* Max Gal of Material (gal/yr) \* (1 ton/2000 lbs)

Particulate Potential (tons/yr) = (gal/yr) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \* (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total PTE (tons/yr) = Σ(Worst Coatings) + Σ(Solvents)

**Appendix A.2: Limited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Hazardous Air Pollutant (HAP) Emissions  
From the Autobody Refinishing Operation (IR-ARO)**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Material	Max Gal of Material (gal/hr)	Weight % 1,6-hexamethyl diisocyanate	Weight % 1,2,4-trimethyl benzene	Weight % N-butyl Alcohol	Weight % Cumene	Weight % Ethylbenzene	Weight % Glycol Ethers	Weight % Isophorone diisocyanate	Weight % Methanol	Weight % MIBK	Weight % Naphthalene	Weight % Toluene	Weight % Xylenes *	Weight % Cobalt Compounds
Basecoat	0.036	0%	0%	0%	0%	7.20%	0%	0%	0%	54.00%	0.30%	8.00%	29.00%	0%
Clearcoat	0.036	0%	0%	0%	0%	5.30%	3.00%	0%	0%	3.00%	0%	9.00%	21.00%	0%
Acrylic Enamel	0.036	0%	0%	0%	2.60%	3.00%	3.00%	0%	0%	3.00%	0.70%	10.00%	9.00%	0.30%
Reducer	0.010	0.40%	11.00%	26.00%	0.60%	6.10%	20.00%	1.20%	20.00%	38.00%	0.50%	30.00%	24.00%	0.10%
Basemaker	0.010	0%	0%	0%	0%	4.70%	0%	0%	0%	8.00%	0%	2.00%	15.00%	0%

Material	Max Gal of Material (gal/yr)	1,6-hexamethyl diisocyanate Emissions (ton/yr)	1,2,4-trimethyl benzene Emissions (ton/yr)	N-butyl Alcohol Emissions (ton/yr)	Cumene Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Isophorone diisocyanate Emissions (tons/yr)	Methanol Emissions (tons/yr)	MIBK Emissions tons/yr	Napthalene Emissions (tons/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cobalt Compounds Emissions (ton/yr)	
Basecoat	0.036	0	0	0	0	0.09	0	0	0	0.60	3.86E-03	0.11	0.37	0	
Clearcoat	0.036	0	0	0	0	0.06	0.04	0	0	0.04	0	0.11	0.25	0	
Acrylic Enamel	0.036	0	0	0	0.03	0.04	0.04	0	0	0.04	9.08E-03	0.12	0.12	3.55E-03	
Reducer	0.010	1.87E-03	0.04	0.08	2.19E-03	0.02	0.07	4.66E-03	0.06	0.13	1.72E-03	0.11	0.084	4.10E-04	
Basemaker	0.010	0	0	0	0	0.02	0	0	0	0.03	0	6.61E-03	0.076	0	
<b>Total PTE (tons/yr)</b>		<b>Single HAP</b>	<b>1.87E-03</b>	<b>0.04</b>	<b>0.08</b>	<b>0.04</b>	<b>0.24</b>	<b>0.15</b>	<b>4.66E-03</b>	<b>0.06</b>	<b>0.84</b>	<b>0.01</b>	<b>0.45</b>	<b>0.90</b>	<b>0.00</b>
		<b>Combined HAPs</b>	<b>2.810</b>												

**NOTES**

\*Previously, an entry was made separately for p-Xylene, this has been consolidated into the "Xylenes" category.

MIBK = Methyl isobutyl ketone, is also known as Hexone.

Single HAP emissions represent a worst-case composite of the coatings for each coating category (i.e., base coat, etc...) used at this source. Emissions were calculated for each single HAP using the density and weight % of the worst-case coating for that HAP.

Note: The paint shop involves manual application of coatings using brush application for the purposes of maintenance of the facility. Therefore, emissions are not counted towards the PTE, and 326 IAC 6-3-2 and 326 IAC 8 limitations and requirements do not apply.

**METHODOLOGY**

Single HAPS emission rate (tons/yr) = Density of worst-case coating (lb/gal) \* Max Gal of Material (gal/yr) \* Weight % HAP of worst-case coating \* 1 ton/2000 lbs

**Appendix A.2: Limited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Volatile Organic Compound (VOC) and Hazardous Air Pollutant (HAP) Emissions  
From the Cold Cleaner Degreaser Units (Parts Washers)**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

**Volatile Organic Compound (VOC) Emissions**

Location	Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water and Exempt Solvents	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Max Gal of Mat. (gal/yr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC tons per year
Garage-Outside	Zep Dyna 143	6.58	100.00%	0.0%	100.0%	0%	0%	1.00	6.58	6.58	3.29E-03
Grounds-Outside	Zep Dyna 143	6.58	100.00%	0.0%	100.0%	0%	0%	10.00	6.58	6.58	0.03
Autobody- Inside	Nason 105 Laquer Thinner	6.96	100.00%	0.0%	100.0%	0%	0%	20.00	6.96	6.96	6.96E-02
Paint Shop-Inside	Zep Dyna 143	6.58	100.00%	0.0%	100.0%	0%	0%	20.00	6.58	6.58	0.07
Paint Shop-Outside	Zep Dyna 143	6.58	100.00%	0.0%	100.0%	0%	0%	20.00	6.58	6.58	0.07

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Max Gal of Material (gal/yr) \* (1 ton/2000 lbs)

PM10 and PM2.5 emissions are assumed equal to PM emissions.

PM/PM10 Potential Tons per Year = (gal/yr) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \* (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

<b>Total PTE (tons/yr)</b>	<b>0.24</b>
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**Hazardous Air Pollutant (HAP) Emissions**

Location	Material	Density (Lb/Gal)	Max Gal of Material (gal/yr)	Weight % Ethylbenzene	Weight % Glycol Ethers	Weight % Hexane	Weight % Methanol	Weight % Toluene	Weight % Xylene
Garage-Outside	Zep Dyna 143	6.58	1.00	0%	0%	0%	0%	0%	1.00%
Grounds- Outside	Zep Dyna 143	6.58	10.00	0%	0%	0%	0%	0%	1.00%
Autobody- Inside	Nason 105 Lacquer Thinner	6.96	20.00	1.60%	0%	0%	38.00%	49.00%	6.00%
Paint Shop-Inside	Zep Dyna 143	6.58	20.00	0%	0%	0%	0%	0%	1.00%
Paint Shop-Outside	Zep Dyna 143	6.58	20.00	0%	0%	0%	0%	0%	1.00%

Location	Material	Density (Lb/Gal)	Max Gal of Material (gal/yr)	Ethylbenzene Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Hexane Emissions (ton/yr)	Methanol Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total Combined HAPs
Garage-Outside	Zep Dyna 143	6.58	1.00	0	0	0	0	0	3.29E-05	<b>0.07</b>
Grounds- Outside	Zep Dyna 143	6.58	10.00	0	0	0	0	0	3.29E-04	
Autobody- Inside	Nason 105 Lacquer Thinner	6.96	20.00	1.11E-03	0	0	2.64E-02	3.41E-02	4.18E-03	
Paint Shop-Inside	Zep Dyna 143	6.58	20.00	0	0	0	0	0	6.58E-04	
Paint Shop-Outside	Zep Dyna 143	6.58	20.00	0	0	0	0	0	6.58E-04	
<b>Total Single HAPs (tons/yr)</b>				<b>1.11E-03</b>	<b>0</b>	<b>0</b>	<b>0.026</b>	<b>0.034</b>	<b>5.85E-03</b>	

**NOTE**

The Zep Dyna 143 consists of light aliphatic naptha (CAS 64742-88-7), aka Mineral Spirits, which contains 1% xylenes. Reference: Table 1. Default Organic HAP Mass Fraction for Solvents and Solvent Blends (Source: 40 CFR 63).

**METHODOLOGY**

HAPS emission rate (tons/yr) = Density (lb/gal) \* Max Gal of Material (gal/yr) \* Weight % HAP \* 1 ton/2000 lbs

**Appendix A.2: Limited Emissions Calculations**  
**Pendleton Correctional Facility (IR)**  
**Volatile Organic Compounds and Hazardous Air Pollutants (HAPs)**  
**from the Gasoline Fuel Transfer and Dispensing (GDF) Operation**

**Company Name:** Pendleton Correctional Facility  
**Source Address:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit Number:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

To calculate evaporative emissions from the gasoline dispensing fuel transfer and dispensing operation emission factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids were used. The total potential emission of VOC is as follows:

Gasoline Throughput =  $\frac{20.4}{7.45}$  gallons/day  
 Gasoline Throughput =  $\frac{20.4}{7.45}$  kgal/yr

**Volatile Organic Compounds**

Emission Source	Emission Factor (lb/kgal of throughput)*	PTE of VOC (tons/yr)
Filling storage tank (submerged filling)	7.30	0.0272
Tank breathing and emptying	1.00	0.0037
Vehicle refueling (displaced losses - uncontrolled)	11.00	0.0410
Spillage	0.70	0.0026
<b>Total</b>		<b>0.07</b>

The potential to emit (PTE) Hazardous Air Pollutants (HAPs) were estimated using published gasoline data and assuming that the HAP % composition of the gasoline vapor is similar to the HAP % composition in liquid gasoline.

**Hazardous Air Pollutants (HAPs)**

Volatile Organic HAP	CAS#	HAP Content for Gasoline (% by weight)**	PTE of HAP (tons/yr)
1,3-Butadiene	106-99-0	3.70E-5%	2.8E-06
2,2,4-Trimethylpentane	540-84-1	2.40%	1.8E-03
Benzene	71-43-2	1.90%	1.4E-03
Ethylbenzene	100-41-4	1.70%	1.3E-03
n-Hexane	110-54-3	2.40%	1.8E-03
Methyl-tert-butylether	1634-04-4	0.33%	2.5E-04
Naphthalene	91-20-3	0.25%	1.9E-04
Toluene	108-88-3	8.10%	6.0E-03
Total Xylenes	1330-20-7	9.00%	6.7E-03

**Total PTE of HAPs (tons/yr)      0.02**  
**PTE of Worst Single HAP (tons/yr)      0.01      (xylenes)**

**Methodology**

\*Emission Factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids (dated 6/08), Table 5.2-7

\*\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehsfoundation.org/Publications.aspx>

The gasoline throughput was provided by the source.

Gasoline Throughput (kgal/yr) = [Gasoline Throughput (gallons/day)] \* [365 days/yr] \* [kgal/1000 gal]

PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)] \* [Emission Factor (lb/kgal)] \* [ton/2000 lb]

PTE of HAP (tons/yr) = [HAP Content of Gasoline (% by weight)] \* [PTE of VOC (tons/yr)]

**Abbreviations**

VOC = Volatile Organic Compounds

HAP = Hazardous Air Pollutant

PTE = Potential to Emit

**Appendix A.2: Limited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Particulate and Hazardous Air Pollutant Emissions (HAPs)  
from the Welding and Thermal Cutting**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM <sub>10</sub>	Mn	Ni	Cr	PM = PM <sub>10</sub>	Mn	Ni	Cr	
<b>WELDING</b>												
Submerged Arc	1	1.35		0.036	0.011			0.049	0.015	0	0	0.015
Metal Inert Gas (MIG)(carbon steel)	4	0.5		0.0055	0.0005			0.011	0.001	0	0	0.001
Tungsten Inert Gas (TIG)(carbon steel)	2	0.5		0.0055	0.0005			0.006	0.001	0	0	0.001
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM <sub>10</sub>	Mn	Ni	Cr	PM = PM <sub>10</sub>	Mn	Ni	Cr	
Plasma**	1	0.75	48	0.0039				0.011	0	0	0	0
<b>EMISSION TOTALS</b>												
<b>Potential Emissions lbs/hr</b>								0.08	0.02	0	0	0.02
<b>Potential Emissions lbs/day</b>								1.83	0.39	0	0	0.39
<b>Potential Emissions tons/year</b>								0.33	0.07	0	0	0.07

**METHODOLOGY**

\*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

\*Rod consumption (lbs/hour) was determined from a max rod usage of 30 rods per hour, a diameter of 1/8", a 13" length, and a carbon steel density of 1.35 lbs/hr

\*\*Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

Welding emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

PM=PM10=PM2.5



**Appendix A.2: Limited Emissions Calculations  
Pendleton Correctional Facility (IR)  
Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from  
Insignificant Natural Gas-Fired Combustion Units  
with a maximum heat input capacity <100 MMBtu/hr, each**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Location	Equipment Name	ID	MMBtu/hr
Garage	Radiant Heater 1	B-20	0.10
Garage	Radiant Heater 2	B-21	0.10
Garage	Radiant Heater 3	B-22	0.10
Garage	Radiant Heater 4	B-23	0.10
Garage	Furnace 1	B-24	0.060
Garage	Forced Air Heater 1	B-25	0.05
Garage	Forced Air Heater 2	B-26	0.05
Construction Services	Office Heater	B-27	0.135
Construction Services	Shop Heater	B-28	0.196
Garage	Water Heater 1	B-29	0.075
<b>Total</b>			<b>0.97</b>

Heat Input Capacity MMBtu/hr	HHV mmBtu	Potential Throughput MMCF/yr
0.97	1020	8.30
	mmscf	

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5	SO <sub>2</sub>	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	7.88E-03	0.03	0.03	2.49E-03	0.41	0.02	0.35

\*PM emission factor is filterable PM only. PM10 & PM2.5 emission factors are filterable and condensable fractions combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Emission Factor in lb/MMCF	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	8.71E-06	4.98E-06	3.11E-04	7.47E-03	1.41E-05

Emission Factor in lb/MMCF	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.07E-06	4.56E-06	5.81E-06	1.58E-06	8.71E-06

The five highest organic and metal HAPs emission factors are provided above.

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04 (AP-42 Supplement D 3/

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

updated 10/2014

**Appendix A.2: Limited Emissions Calculations  
Correctional Industrial Facility (CIF) Emission Summary**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Potential To Emit of the Correctional Industrial Facility (CIF) After Issuance of the Renewal (tons/year)								
Category	Pollutant	Emissions Generating Activity						TOTAL
		Diesel-fired Emergency Generators (G-2 & G-3)	Gasoline Dispensing Facility (CIF-GDF)	Welding (mult.)	Grinding (mult.)	CNC Machining (coolant)	Insignificant Natural Gas Combustion Units	
Criteria Pollutants	PM	0.31	0	0.40	0.03	0	0.02	0.76
	PM10	0.18	0	0.40	0.01	0	0.09	0.68
	PM2.5	0.18	0	0.40	0.01	0	0.09	0.68
	SO2	1.80	0	0	0	0	0.01	1.81
	NOx	10.68	0	0	0	0	1.24	11.92
	VOC	0.31	0.07	0	0	0.08	0.07	0.54
	CO	2.45	0	0	0	0	1.04	3.49
Hazardous Air Pollutants	1,3-Butadiene	0	2.76E-06	0	0	0	0	2.76E-06
	1,6-hexamethyldiisocyanate	0	0	0	0	0	0	0
	1,2,4-trimethyl benzene	0	0	0	0	0	0	0
	2,2,4-Trimethylpentane	0	1.79E-03	0	0	0	0	1.79E-03
	N-Butyl acetate	0	0	0	0	0	0	0
	Acetaldehyde	7.85E-05	0	0	0	0	0	7.85E-05
	Acrolein	2.45E-05	0	0	0	0	0	2.45E-05
	Benzene	2.42E-03	1.41E-03	0	0	0	2.60E-05	3.86E-03
	Cumene	0	0	0	0	0	0	0
	Dichlorobenzene	0	0	0	0	0	1.48E-05	1.48E-05
	Ethylbenzene	0	1.27E-03	0	0	0	0	1.27E-03
	Formaldehyde	2.46E-04	0	0	0	0	9.27E-04	1.17E-03
	Glycol Ethers	0	0	0	0	0	0	0
	Hexane	0	1.79E-03	0	0	0	2.22E-02	0.02
	HCL	0	0	0	0	0	0	0
	Isophorone diisocyanate	0	0	0	0	0	0	0
	Methanol	0	0	0	0	0	0	0
	Methyl-tert-butylether	0	2.46E-04	0	0	0	0	2.46E-04
	MIBK	0	0	0	0	0	0	0
	Napthalene	0	1.86E-04	0	0	0	0	1.86E-04
	Styrene	0	0	0	0	0	0	0
	Toluene	8.75E-04	6.03E-03	0	0	0	4.20E-05	6.95E-03
	Total PAH HAPs	6.60E-04	0	0	0	0	0	6.60E-04
	Polycyclic Organic Matter	0	0	0	0	0	0	0
	Xylenes	6.01E-04	6.70E-03	0	0	0	0	7.30E-03
	Arsenic	0	0	0	0	0	0	0
	Beryllium	0	0	0	0	0	0	0
	Cadmium	0	0	0	0	0	1.36E-05	1.36E-05
	Chromium	0	0	0	0	0	1.73E-05	1.73E-05
	Cobalt Compounds	0	0	0	0	0	0	0
	Lead	0	0	0	2.02E-03	0	6.18E-06	2.03E-03
	Manganese	0	0	0.12	0	0	4.70E-06	0.12
	Mercury	0	0	0	0	0	0	0
Nickel	0	0	0	0	0	2.60E-05	2.60E-05	
Selenium	0	0	0	0	0	0	0	
<b>Totals</b>		<b>4.90E-03</b>	<b>0.019</b>	<b>0.122</b>	<b>2.02E-03</b>	<b>0</b>	<b>0.023</b>	<b>0.17</b>
<b>"Worst" Single HAP</b>		<b>2.42E-03 (benzene)</b>	<b>0.007 (xylenes)</b>	<b>0.122 (manganese)</b>	<b>2.02E-03 (lead)</b>	<b>n/a</b>	<b>0.022 (hexane)</b>	<b>0.12 (manganese)</b>

Total emissions are based on rated capacity at 8,760 hours/year, with the exception of the emergency generators which are calculated at 500 hours per year.  
mult. = multiple units

**Appendix A.2: Limited Emissions Calculations  
Correctional Industrial Facility (CIF)  
Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from  
Large Reciprocating Internal Combustion Engines - Diesel Fuel  
Output Rating (>600 HP)  
Maximum Input Rate (>4.2 MMBtu/hr)  
CIF Generators G-2 and G-3**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Unit	Horsepower
CIF G-2	890.0
CIF G-3	890.0
<b>Total</b>	<b>1,780.0</b>

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	1,780.0
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	890,000

Maximum Diesel Fuel Usage (gal/yr)	45,464
Sulfur Content (S) of Fuel (% by weight)	0.50

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03 (.00809S)	2.40E-02 **see below	7.05E-04	5.50E-03
Potential Emission in tons/yr	0.31	0.18	0.18	1.80	10.68	0.31	2.45

\*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Maximum Diesel Fuel Usage (gal/yr) = [Potential Throughput (hp-hr/yr) \* (average brake specific fuel consumption of 7,000 Btu / hp-hr) \* 1 / (diesel heating value of 19,300 Btu/lb) \* 1 / (diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1))]

**Hazardous Air Pollutants (HAPs)**

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	2.42E-03	8.75E-04	6.01E-04	2.46E-04	7.85E-05	2.45E-05	6.60E-04

\*\*\*PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

\*\*\*\*Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>4.90E-03</b>
---	-----------------

**Methodology**

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] \* [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] \* [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

icdsl600.xls 9/95  
updated 10/2014

**Appendix A.2: Limited Emissions Calculations**  
**Correctional Industrial Facility (CIF)**  
**Volatile Organic Compounds and Hazardous Air Pollutants (HAPs)**  
**from the Gasoline Fuel Transfer and Dispensing (GDF) Operation**

**Company Name:** Pendleton Correctional Facility  
**Source Address:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit Number:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

To calculate evaporative emissions from the gasoline dispensing fuel transfer and dispensing operation emission factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids were used. The total potential emission of VOC is as follows:

Gasoline Throughput =  $\frac{20.4}{7.45}$  gallons/day  
 Gasoline Throughput =  $\frac{20.4}{7.45}$  kgal/yr

**Volatile Organic Compounds**

Emission Source	Emission Factor (lb/kgal of throughput)*	PTE of VOC (tons/yr)
Filling storage tank (submerged filling)	7.30	0.0272
Tank breathing and emptying	1.00	0.0037
Vehicle refueling (displaced losses - uncontrolled)	11.00	0.0410
Spillage	0.70	0.0026
<b>Total</b>		<b>0.07</b>

The potential to emit (PTE) Hazardous Air Pollutants (HAPs) were estimated using published gasoline data and assuming that the HAP % composition of the gasoline vapor is similar to the HAP % composition in liquid gasoline.

**Hazardous Air Pollutants (HAPs)**

Volatile Organic HAP	CAS#	HAP Content for Gasoline (% by weight)**	PTE of HAP (tons/yr)
1,3-Butadiene	106-99-0	3.70E-5%	2.8E-06
2,2,4-Trimethylpentane	540-84-1	2.40%	1.8E-03
Benzene	71-43-2	1.90%	1.4E-03
Ethylbenzene	100-41-4	1.70%	1.3E-03
n-Hexane	110-54-3	2.40%	1.8E-03
Methyl-tert-butylether	1634-04-4	0.33%	2.5E-04
Naphthalene	91-20-3	0.25%	1.9E-04
Toluene	108-88-3	8.10%	6.0E-03
Total Xylenes	1330-20-7	9.00%	6.7E-03

**Total PTE of HAPs (tons/yr)      0.02**  
**PTE of Worst Single HAP (tons/yr)      0.01      (xylenes)**

**Methodology**

\*Emission Factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids (dated 6/08), Table 5.2-7

\*\*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehsfoundation.org/Publications.aspx>

The gasoline throughput was provided by the source.

Gasoline Throughput (kgal/yr) = [Gasoline Throughput (gallons/day)] \* [365 days/yr] \* [kgal/1000 gal]

PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)] \* [Emission Factor (lb/kgal)] \* [ton/2000 lb]

PTE of HAP (tons/yr) = [HAP Content of Gasoline (% by weight)] \* [PTE of VOC (tons/yr)]

**Abbreviations**

VOC = Volatile Organic Compounds

HAP = Hazardous Air Pollutant

PTE = Potential to Emit

**Appendix A.2: Limited Emissions Calculations  
Correctional Industrial Facility (CIF)  
Particulate and Hazardous Air Pollutant (HAP) Emissions  
from the Welding Operations**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
			PM = PM <sub>10</sub>	Mn	Ni	Cr	PM = PM <sub>10</sub>	Mn	Ni	Cr	
<b>WELDING</b>											
Submerged Arc	3	0.84	0.036	0.011			0.091	0.028	0	0	0.028
Metal Inert Gas (MIG)(carbon steel)	0	0	5.50E-03	5.00E-04			0.00E+00	0.00E+00	0	0	0.00E+00
Tungsten Inert Gas (TIG)(carbon steel)	0	0	5.50E-03	5.00E-04			0.00E+00	0.00E+00	0	0	0.00E+00
<b>EMISSION TOTALS</b>											
<b>Potential Emissions lbs/hr</b>							0.09	0.03	0	0	0.03
<b>Potential Emissions lbs/day</b>							2.18	0.67	0	0	0.67
<b>Potential Emissions tons/year</b>							0.40	0.12	0	0	0.12

METHODOLOGY

\*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.  
 Max electrode consumption based on 15 rolls per month, 33 lbs per roll, 28 days per month, and 21 hours per day  
 Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick  
 Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)  
 Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day  
 Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.  
 PM=PM10=PM2.5

**Appendix A.2: Limited Emissions Calculations  
Correctional Industrial Facility (CIF)  
Particulate and Hazardous Air Pollutant (HAP) Emissions  
from the Grinding Operations (CIF-MGS1 through CIF-MGS3)**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Process:	Max Throughput Rate		Particulates				HAPs	
			Emission Factor *		Potential to Emit		Lead Content (%) **	PTE of Lead (tons/year)
	(lbs/hr)	(tons iron/hr)	PM (lbs/ton)	PM10/PM2.5 (lbs/ton)	PM (tons/yr)	PM10/PM2.5 (tons/yr)		
3 Grinders	1200	0.6	0.01	0.0045	0.03	1.18E-02	7.70%	2.02E-03
<b>Total</b>					<b>0.03</b>	<b>0.01</b>	<b>2.02E-03</b>	

The max throughput is based on a rate of 1,800 brake shoes processed per day, a shoe weight of 14 lbs, and 21 hours of operation per day.

\* Emission factors are from FIRE Volume II, Chapter 14, Grey Stone Iron Foundries - SCC 3-04-003-60 (July, 2001)

\*\* Lead Emissions are based on the lab test conducted by Precision Process Division in Walkerton, Indiana  
 In the absence of valid PM2.5 Emission Factors, it is assumed that PM2.5 emissions = PM10 emissions.

**Methodology**

Max Throughput Rate (tons iron/hr) = [Max Throughput Rate (lbs iron/hr) \* 1 ton / 2000 lbs]

PTE PM/PM-10 (tons/year) = [Max. Throughput Rate (tons/hour) \* Emission Factor (lbs/ton) \* 8760 hours/year \* 1 ton/2000 lbs]

PTE Lead (tons/year) = [Max. Throughput Rate (tons/hour) \* PM Emission Factor (lbs/ton) \* 8760 hours/year \* 1 ton/2000 lbs \* Lead Content (%)]

**Appendix A.2: Limited Emissions Calculations  
Correctional Industrial Facility (CIF)  
Particulate and Volatile Organic Compound (VOC) Emissions  
from the C&C Machine Reservoirs**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Material	# of Identical Machines	VOC Content (lbs/gal)	Max Gal of Mat. Per Machine (gal/yr)	Potential VOC (tons/yr)
QuakerCool 2778 AE	2	1.053	75.00	0.08

**Notes:**

The coolant is flooded across the cutting surface, therefore the method of application is flow coating. The transfer efficiency, from Air Pollution Engineering Manual, Second Edition, AP-40, U. S. Environmental Protection Agency, Research Triangle Park, NC, May 1973 (pg 859 - 861), is 100% for flow coating application methods. Therefore, particulate emissions are assumed negligible.

The MSDS for QuakerCool does not list any HAPs or show a % solids.

**Methodology:**

$$\text{PTE VOC (tons/yr)} = (\text{VOC Content (lbs/gal)}) * (\text{Max Gal of Mat per Machine (gal/yr)}) * (\text{\# of Machines}) / (2000 \text{ lbs/ton})$$

**Appendix A.2: Limited Emissions Calculations**  
**Correctional Industrial Facility (CIF)**  
**Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from**  
**Insignificant Natural Gas-Fired Combustion Units**  
**with a maximum heat input capacity <100 MMBtu/hr, each**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Location	Eqmnt Name	ID	MMBtu/hr
Laundry	Dryer 1	B-38	0.3
Laundry	Dryer 2	B-39	0.3
Laundry	Dryer 3	B-40	0.3
Laundry	Dryer 4	B-41	0.3
Laundry	Dryer 5	B-42	0.3
Food Service	Oven 1	B-44	0.06
Food Service	Oven 2	B-45	0.06
Food Service	Oven 3	B-46	0.06
Food Service	Oven 4	B-47	0.06

Location	Eqmnt Name	ID	MMBtu/hr
Food Service	Oven 5	B-48	0.06
Food Service	Oven 6	B-49	0.06
Food Service	Oven 7	B-50	0.06
Food Service	Oven 8	B-51	0.06
Food Service	Griddle 1	B-52	0.162
Food Service	Griddle 2	B-53	0.162
Food Service	Griddle 3	B-54	0.162
Food Service	Griddle 4	B-55	0.162
Food Service	Large Oven 1	B-56	0.25
<b>Total</b>			<b>2.878</b>

Heat Input Capacity  
MMBtu/hr

2.88

HHV  
mmBtu  
mmscf

1020

Potential Throughput  
MMCF/yr

24.72

	Pollutant						
	PM*	PM10*	PM2.5	SO <sub>2</sub>	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.02	0.09	0.09	0.01	1.24	0.07	1.04

\*PM emission factor is filterable PM only. PM10 & PM2.5 emission factors are filterable and condensable fractions combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**HAPs Emissions**

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.60E-05	1.48E-05	9.27E-04	2.22E-02	4.20E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	6.18E-06	1.36E-05	1.73E-05	4.70E-06	2.60E-05

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

updated 10/2014



**Appendix A.2: Limited Emissions Calculations  
Pendleton Juvenile Correctional Facility (PJCF) Emission Summary**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road,  
 Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

<b>Potential To Emit of the Pendleton Juvenile Correctional Facility (PJCF) After Issuance of the Renewal (tons/year)</b>				
Category	Pollutant	Emissions Generating Activity		TOTAL
		Diesel-fired Emergency Generator (G-4)	Insignificant Natural Gas Combustion Units	
Criteria Pollutants	PM	0.33	0.16	0.49
	PM10	0.19	0.64	0.83
	PM2.5	0.19	0.64	0.83
	SO2	1.92	0.05	1.97
	NOx	11.40	8.38	19.78
	VOC	0.33	0.46	0.80
	CO	2.61	7.04	9.65
Hazardous Air Pollutants	1,3-Butadiene	0	0	0
	1,6-hexamethyldiisocyanate	0	0	0
	1,2,4-trimethyl benzene	0	0	0
	2,2,4-Trimethylpentane	0	0	0
	N-Butyl acetate	0	0	0
	Acetaldehyde	8.38E-05	0	8.38E-05
	Acrolein	2.62E-05	0	2.62E-05
	Benzene	2.58E-03	1.76E-04	2.76E-03
	Cumene	0	0	0
	Dichlorobenzene	0	1.01E-04	1.01E-04
	Ethylbenzene	0	0	0
	Formaldehyde	2.62E-04	6.28E-03	6.55E-03
	Glycol Ethers	0	0	0
	Hexane	0	1.51E-01	0.15
	HCL	0	0	0
	Isophorone diisocyanate	0	0	0
	Methanol	0	0	0
	Methyl-tert-butylether	0	0	0
	MIBK	0	0	0
	Napthalene	0	0	0
	Styrene	0	0	0
	Toluene	9.34E-04	2.85E-04	1.22E-03
	Total PAH HAPs	7.05E-04	0	7.05E-04
	Polycyclic Organic Matter	0	0	0
	Xylenes	6.42E-04	0	6.42E-04
	Arsenic	0	0	0
	Beryllium	0	0	0
	Cadmium	0	9.22E-05	9.22E-05
	Chromium	0	1.17E-04	1.17E-04
	Cobalt Compounds	0	0	0
	Lead	0	4.19E-05	4.19E-05
	Manganese	0	3.18E-05	3.18E-05
Mercury	0	0	0	
Nickel	0	1.76E-04	1.76E-04	
Selenium	0	0	0	
	<b>Totals</b>	<b>5.23E-03</b>	<b>0.158</b>	<b>0.16</b>
	<b>"Worst" Single HAP</b>	<b>2.58E-03</b> <b>(benzene)</b>	<b>0.151</b> <b>(hexane)</b>	<b>0.15</b> <b>(hexane)</b>

Total emissions are based on rated capacity at 8,760 hours/year, with the exception of the emergency generator, which is calculated at 500 hours per year.

**Appendix A.2: Limited Emissions Calculations  
Pendleton Juvenile Correctional Facility (PJCF)  
Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from  
Large Reciprocating Internal Combustion Engines - Diesel Fuel  
Output Rating (>600 HP)  
Maximum Input Rate (>4.2 MMBtu/hr)  
PJCF Generator G-4**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit Number:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

**Emissions calculated based on output rating (hp)**

Output Horsepower Rating (hp)	1,900.0	Maximum Diesel Fuel Usage (gal/yr)	48,530
Maximum Hours Operated per Year	500	Sulfur Content (S) of Fuel (% by weight)	0.50
Potential Throughput (hp-hr/yr)	950,000		

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03 (.00809S)	2.40E-02 **see below	7.05E-04	5.50E-03
Potential Emission in tons/yr	0.33	0.19	0.19	1.92	11.40	0.33	2.61

\*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

\*\*NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Maximum Diesel Fuel Usage (gal/yr) = [Potential Throughput (hp-hr/yr) \* (average brake specific fuel consumption of 7,000 Btu / hp-hr) \* 1/(diesel heating value of 19,300 Btu/lb) \* 1/(diesel fuel density of 7.1 lb / gal (AP-42 Tables 3.3-1 and 3.4.1))]

**Hazardous Air Pollutants (HAPs)**

	Pollutant						
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06
Potential Emission in tons/yr	2.58E-03	9.34E-04	6.42E-04	2.62E-04	8.38E-05	2.62E-05	7.05E-04

\*\*\*PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

\*\*\*\*Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

<b>Potential Emission of Total HAPs (tons/yr)</b>	<b>5.23E-03</b>
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**Methodology**

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] \* [Maximum Hours Operated per Year]

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] \* [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

icdsl600.xls 9/95  
updated 10/2014

**Appendix A.2: Limited Emissions Calculations  
Pendleton Juvenile Correctional Facility (PJCF)  
Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions from  
Insignificant Natural Gas-Fired Combustion Units  
with a maximum heat input capacity <100 MMBtu/hr, each**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road, Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Location	Equipment Name	ID	MMBtu/hr
Services	Hot Water Boiler 1	B-6	1.44
Services	Hot Water Boiler 2	B-7	1.44
Building A	Boiler 1	B-8	0.25
Building A	Boiler 2	B-9	0.25
Building B	Boiler 1	B-10	0.25
Building B	Boiler 2	B-11	0.25
Building C	Boiler 1	B-12	0.25
Building C	Boiler 2	B-13	0.25
Building E	Boiler 1	B-14	0.25
Building E	Boiler 2	B-15	0.25
Programs	Boiler 1	B-16	1.44
Programs	Boiler 2	B-17	1.44

Location	Equipment Name	ID	MMBtu/hr
Administration	Hot Water Boiler 1	B-18	0.5
Administration	Hot Water Boiler 2	B-19	0.5
Services	Kitchen Hot Water Heater	B-30	1.26
Services	Med & Sleep Hot Water Heater	B-31	0.99
Services	Laundry Hot Water Heater	B-32	1.26
Building A	Water Heater 1	B-33	1.26
Building B	Water Heater 1	B-34	1.26
Building C	Water Heater 1	B-35	1.26
Building E	Water Heater 1	B-36	1.26
Programs	Water Heater 1	B-37	1.8
Services	Dryer 1	B-43	0.3
Maintenance	Air Handling Unit 1	B-57	0.1
<b>Total</b>			<b>19.51</b>

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
19.5	1020	167.6

Emission Factor in lb/MMCF	Criteria Pollutant						
	PM*	PM10*	PM2.5*	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.16	0.64	0.64	0.05	8.38	0.46	7.04

\*PM emission factor is filterable PM only. PM10 & PM2.5 emission factors are filterable and condensable fractions combined.

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

**HAPs Emissions**

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.76E-04	1.01E-04	6.28E-03	1.51E-01	2.85E-04

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	4.19E-05	9.22E-05	1.17E-04	3.18E-05	1.76E-04

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

updated 10/2014

**Appendix A.3: Applicability Determination for  
326 IAC Article 6-2 Particulate Emission Limitations  
for Sources of Indirect Heating (boilers)**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road,  
Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Year Constructed	Emission Unit (Boiler) ID	Maximum Capacity of Boiler (MMBtu/hr)	Total Source Operating Capacity at time of construction (Q)	PM Emission Limitation for each boiler (Pt)	Notes
1961	B-1	75.00	243.75	0.6400	Initial installation (construction). 326 IAC 6-2-3 applies. Q taken from Operating Permits No: 48-03-90-0084, 48-03-90-0085, and 48-03-90-0086, issued 03/01/1990.
	B-2	75.00		0.6400	
1968	B-3	93.75		0.6400	
1983	original B-4*	25.00	309.75	0.2453	*Original Boiler B-4 was constructed after 09/21/1983 and removed in 1996. **Original Boiler B-5, renumbered as B-4, received construction approval 11/21/1983. 326 IAC 6-2-4 applies to all boilers constructed, modified, or reconstructed after 09/21/1983.
	B-4** (was initially B-5)	41.00		0.2453	
1985	B-29	0.075	309.83	0.2453	A <u>new</u> hot water heater installed (constructed).
1995	new B-5	61.89	371.72	0.2340	A <u>new</u> Boiler B-5 installed (constructed).
1996	remov. orig. B-4	-25.00	346.72	n/a	Removal of original Boiler B-4.
1998	B-1	79.13	360.13	0.2359	Boilers B-1 through B-3 retrofitted. Coal combustion functionality removed and replaced with natural gas. Q = (337.58 - (75.0 + 75.0 + 93.75)) + (79.13 + 79.13 + 98.9) = 350.99
	B-2	79.13		0.2359	
	B-3	98.90		0.2359	
2000	B-6	1.44	379.24	0.2328	Natural gas-fired boilers/hot water heaters installed when Pendleton Juvenile Correctional Facility (PJCF) was built.
	B-7	1.44		0.2328	
	B-8	0.25		0.2328	
	B-9	0.25		0.2328	
	B-10	0.25		0.2328	
	B-11	0.25		0.2328	
	B-12	0.25		0.2328	
	B-13	0.25		0.2328	
	B-14	0.25		0.2328	
	B-15	0.25		0.2328	
	B-16	1.44		0.2328	
	B-17	1.44		0.2328	
	B-18	0.50		0.2328	
	B-19	0.50		0.2328	
	B-30	1.26		0.2328	
	B-31	0.99		0.2328	
	B-32	1.26		0.2328	
B-33	1.26	0.2328			
B-34	1.26	0.2328			
B-35	1.26	0.2328			
B-36	1.26	0.2328			
B-37	1.80	0.2328			
2007	B-1	29.18	329.29	0.2415	Received approval to retrofit Boiler B-1, removing the natural gas combustion functionality and replacing it with biomass (corn). Q = (370.10 - 79.13) + 27.50 = 318.47
2008	B-1	29.18	329.29	0.2415	Received approval to combust additional types of Biomass, as follows: wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris. No change to Q as a result of this modification.
2013	B-1	29.18	329.29	0.2415	Requested approval to combust only clean, dry, untreated wood chips, and to remove approval for wood (including bark), wood pellets, switchgrass, and clean, untreated construction debris. No change to Q as a result of this modification.

**Appendix A.3: Applicability Determination for  
326 IAC Article 6-2 Particulate Emission Limitations  
for Sources of Indirect Heating (boilers)**

**Company Name:** Pendleton Correctional Facility  
**Address City IN Zip:** 4490 West Reformatory Road,  
Pendleton, Indiana 46064  
**Permit No.:** 095-32852-00006  
**Reviewer:** Hannah L. Desrosiers

Page 2 of 2; TSD App A.3

**Methodology**

**325 IAC 6-2-3**

$$Pt = \frac{C * a * h}{76.5 * Q_T^{0.75} * N^{0.25}}$$

where:

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter ( $\mu/m^3$ ) for a period not to exceed a sixty (60) minute time period.

Pt = Pounds of particulate matter emitted per million Btu heat input (lb/mmBtu).

$Q_T$  = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum [heat input] capacity at which the facility (i.e., boiler) is operated or the nameplate [heat input] capacity, whichever is specified in the facility's operation permit application, except when some lower [heat input] capacity is contained in the facility's operation permit; in which case, the [heat input] capacity specified in the operation permit shall be used. (i.e.,  $Q_T = Q_1 + Q_2 + Q_3 + \dots$ )

N = Number of stacks in fuel burning operation. (i.e.,  $N = SV_1 + SV_2 + SV_3 + \dots$ )

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 mmBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 mmBtu/hr heat input.

h = Stack height in feet. Stacks constructed after January 1, 1971, shall be credited with GEP stack height only (calculate as specified in 326 IAC 1-7).

**326 IAC 6-2-4**

$$Pt = 1.09/Q_T^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million Btu heat input (lb/mmBtu).

$Q_T$  = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum [heat input] capacity at which the facility (i.e., boiler) is operated or the nameplate [heat input] capacity, whichever is specified in the facility's operation permit application, except when some lower [heat input] capacity is contained in the facility's operation permit; in which case, the [heat input] capacity specified in the operation permit shall be used. (i.e.,  $Q_T = Q_1 + Q_2 + Q_3 + \dots$ )

For  $Q_T$  less than 10 mmBtu/hr, Pt shall not exceed 0.6. For  $Q_T$  greater than or equal to 10,000 mmBtu/hr, Pt shall not exceed 0.2.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

## SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

**TO:** Glenn Handzlik  
Pendleton Correctional Facility  
4490 W. Reformatory Rd.  
Pendleton, IN 46064

**DATE:** December 24, 2014

**FROM:** Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

**SUBJECT:** Final Decision  
New Source Review (NSR) and  
Federally Enforceable State Operating Permit (FESOP) Renewal  
095-32852-00006

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:  
Katherine Holcomb, August Mack Environmental, Inc.  
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 6/13/2013



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**Michael R. Pence**  
Governor

**Thomas W. Easterly**  
Commissioner

December 24, 2014

TO: Pendleton Community Library

From: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**


**Applicant Name: Pendleton Correctional Facility**  
**Permit Number: 095-32852-00006**

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 6/13/2013

# Mail Code 61-53

IDEM Staff	VHAUN 12/24/2014 Pendleton Correctional Facility 095-32852-00006 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>	

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1		Glenn Handzlik Pendleton Correctional Facility 4490 W Reformatory Rd Pendleton 46064 (Source CAATS)			CONFIRMED DELIVERY							
2		Madison County Commissioners 16 E. 9th Suite 104 Anderson IN 46016 (Local Official)										
3		Madison County Auditor County Government center Anderson IN 46016 (Affected Party)										
4		Madison County Assessor County Government Center Anderson IN 46016 (Affected Party)										
5		Madison County Treasurer County Government Center Anderson IN 46016 (Affected Party)										
6		Pendleton Town Council and Town Manager P.O. Box 230 Pendleton IN 46064 (Local Official)										
7		Pendleton Community Public 595 E Water St Pendleton IN 46064-1070 (Library)										
8		Madison County Health Department 206 E 9th St Anderson IN 46016-1512 (Health Department)										
9		Katherine Holcomb August Mack Environmental, Inc. 1302 N. Meridian Street, Suite 300 Indianapolis IN 46202 (Consultant)										
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