INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding the Renewal of a Part 70 Operating Permit

for Weil-McLain in LaPorte County

Part 70 Operating Permit Renewal No.: T091-39531-00020

The Indiana Department of Environmental Management (IDEM) has received an application from Weil-McLain located at 500 Blaine Street , Michigan City, Indiana 46360 for a renewal of its Part 70 Operating Permit issued on October 23, 2018. If approved by IDEM's Office of Air Quality (OAQ), this proposed renewal would allow Weil-McLain to continue to operate its existing source.

This draft Part 70 Operating Permit Renewal does not contain any new equipment that would emit air pollutants; however, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g., changes that add or modify synthetic minor emission limits). This notice fulfills the public notice procedures to which those conditions are subject. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow for these changes.

A copy of the permit application and IDEM's preliminary findings are available at:

Michigan City Public Library
100 East Fourth Street
Michigan City, IN 46360

and

IDEM Northwest Regional Office
330 W. US Highway 30, Suites E & F
Valparaiso, IN 46385

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

A copy of the preliminary findings is also available via IDEM's Virtual File Cabinet (VFC.) Please go to: http://www.in.gov/idem/ and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an

opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number T091-39531-00020 in all correspondence.

Comments should be sent to:

Rithika Reddy
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 4-9694
Or dial directly: (317) 234-9694
Fax: (317) 232-6749 attn: Rithika Reddy
E-mail: Rreddy@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: http://www.in.gov/idem/airquality/2356.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, at the IDEM Regional Office indicated above , and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Rithika Reddy of my staff at the above address.

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

DRAFT

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Weil-McLain
500 Blaine Street
Michigan City, Indiana 46360

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T091-39531-00020 Master AI ID: 11579	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: Expiration Date:

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY 8

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]
A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]
A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]
A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

SECTION B GENERAL CONDITIONS 16

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

SECTION C SOURCE OPERATION CONDITIONS 27

Emission Limitations and Standards [326 IAC 2-7-5(1)] 27

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

Testing Requirements [326 IAC 2-7-6(1)] 29

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

Compliance Requirements [326 IAC 2-1.1-11] 29

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

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] 29
C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)] [40 CFR 64] [326 IAC 3-8]
C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] 30
C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
C.13 Risk Management Plan [326 IAC 2-7-5(11)] [40 CFR 68]
C.14 Response to Excursions or Exceedances [40 CFR 64] [326 IAC 3-8] [326 IAC 2-7-5] [326 IAC 2-7-6]
C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 33
C.16 Emission Statement [326 IAC 2-7-5 (3) (C) (iii)] [326 IAC 2-7-5 (7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]
C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]
C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

Stratospheric Ozone Protection 37
C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.0 EMISSIONS UNIT OPERATION CONDITIONS 38

Emission Limitations and Standards [326 IAC 2-7-5(1)] 38
D.0.1 Hazardous Air Pollutants (HAPs) Minor Limits

Compliance Determination Requirements [326 IAC 2-7-5(1)] 38
D.0.2 Hazardous Air Pollutants (HAPs) Compliance Determination

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 41
D.0.3 Record Keeping Requirement
D.0.4 Reporting Requirements

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS 43

Emission Limitations and Standards [326 IAC 2-7-5(1)] 43
D.1.1 PSD Minor Limit [326 IAC 2-2]
D.1.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

Compliance Determination Requirements [326 IAC 2-7-5(1)] 44
D.1.4 Testing Requirements [326 IAC 2-1.1-11]
D.1.5 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] 45
D.1.6 Parametric Monitoring
D.1.7 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 46
D.1.8 Record Keeping Requirement
D.1.9 Reporting Requirements

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS 47

Emission Limitations and Standards [326 IAC 2-7-5(1)] 47
D.2.1 PSD Minor Limit [326 IAC 2-2]
D.2.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

Compliance Determination Requirements [326 IAC 2-7-5(1)] 49
D.2.4 Testing Requirements [326 IAC 2-1.1-11]
D.2.5 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] 49
D.2.6 Parametric Monitoring [40 CFR 64]
D.2.7 Broken or Failed Bag Detection [40 CFR 64]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 50
D.2.8 Record Keeping Requirement
D.2.9 Reporting Requirements

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS 52

Emission Limitations and Standards [326 IAC 2-7-5(1)] 52
D.3.1 PSD Minor Limit [326 IAC 2-2]
D.3.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

Compliance Determination Requirements [326 IAC 2-7-5(1)] 53
D.3.4 Testing Requirements [326 IAC 2-1.1-11]
D.3.5 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] 54
D.3.6 Parametric Monitoring
D.3.7 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 55
D.3.8 Record Keeping Requirement

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS 56

Emission Limitations and Standards [326 IAC 2-7-5(1)] 56
D.4.1 PSD Minor Limit [326 IAC 2-2]
D.4.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

Compliance Determination Requirements [326 IAC 2-7-5(1)] 57
D.4.4 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] 57
D.4.5 Visible Emissions Notations [40 CFR 64]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 57
D.4.6 Record Keeping Requirement
D.4.7 Reporting Requirements

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS 59

Emission Limitations and Standards [326 IAC 2-7-5(1)] 59
D.5.1 PM and PM10 PSD Minor Limits [326 IAC 2-2]
D.5.2 CO PSD Minor Limits [326 IAC 2-2]
D.5.3 VOC Limits [326 IAC 2-2][326 IAC 8-1-6]
D.5.4 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.5.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

Compliance Determination Requirements [326 IAC 2-7-5(1)] 62
D.5.6 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] 62
D.5.7 Visible Emissions Notations [40 CFR 64]
D.5.8 Parametric Monitoring [40 CFR 64]
D.5.9 Broken or Failed Bag Detection [40 CFR 64]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 64
D.5.10 Record Keeping Requirement
D.5.11 Reporting Requirements

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS 66

Emission Limitations and Standards [326 IAC 2-7-5(1)] 66
D.6.1 PSD Minor Limit [326 IAC 2-2]
D.6.2 VOC Limits [326 IAC 2-2] [326 IAC 8-1-6]
D.6.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.6.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

Compliance Determination Requirements [326 IAC 2-7-5(1)] 68
D.6.5 Testing Requirements [326 IAC 2-1.1-11]
D.6.6 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] 68
D.6.7 Parametric Monitoring [40 CFR 64]
D.6.8 Broken or Failed Bag Detection [40 CFR 64]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 69
D.6.9 Record Keeping Requirement
D.6.10 Reporting Requirements

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS 71

Emission Limitations and Standards [326 IAC 2-7-5(1)] 71
D.7.1 PSD Minor Limit [326 IAC 2-2]
D.7.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.7.3 Preventive Maintenance Plan [326 IAC 2-7-5 (12)]

Compliance Determination Requirements [326 IAC 2-7-5(1)] 72
D.7.4 Testing Requirements [326 IAC 2-1.1-11]
D.7.5 Particulate Control

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)] 73
D.7.6 Parametric Monitoring [40 CFR 64]
D.7.7 Broken or Failed Bag Detection [40 CFR 64]
D.7.8 Monitoring

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 74
D.7.9 Record Keeping Requirement
D.7.10 Reporting Requirements

SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS 76

Emission Limitations and Standards [326 IAC 2-7-5(1)] 76
D.8.1 Cold Cleaner Degreaser Control Equipment and Operating Requirements [326 IAC 8-3-2]
D.8.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]
D.8.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19] 77
D.8.4 Record Keeping Requirement

SECTION D.9 EMISSIONS UNIT OPERATION CONDITIONS 78

Emission Limitations and Standards [326 IAC 2-7-5(1)] 80
D.9.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2]
D.9.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]
D.9.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

Compliance Determination Requirements [326 IAC 2-7-5(1)] 82
D.9.4 Particulate Control

SECTION E.1 NSPS 83

New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)] 83

E.1.1 General Provisions Relating to New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines [40 CFR Part 60, Subpart A] [326 IAC 12-1]
E.1.2 New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines [40 CFR Part 60, Subpart JJJJ] [326 IAC 12-1]

SECTION E.2 NESHAP 85

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)] 86
E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]
E.2.2 Iron and Steel Foundries Area Sources NESHAP [40 CFR Part 63, Subpart ZZZZZ] [326 IAC 20-1]

SECTION E.3 NESHAP 87

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)] 87
E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]
E.3.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

CERTIFICATION 89

EMERGENCY OCCURRENCE REPORT 90

Part 70 Quarterly Report 92

Part 70 Quarterly Report 93

Part 70 Quarterly Report 94

Part 70 Quarterly Report 95

Part 70 Quarterly Report 96

Part 70 Quarterly Report 97

Part 70 Quarterly Report 98

Part 70 Quarterly Report 99

Part 70 Quarterly Report 100

Part 70 Quarterly Report 101

Part 70 Quarterly Report 102

Part 70 Quarterly Report 103

Part 70 Quarterly Report 104

Part 70 Quarterly Report 105

Part 70 Quarterly Report 106

QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT 107

Attachment A: 40 CFR 60, Subpart JJJJ, NSPS for Stationary Spark Ignition Internal Combustion Engines
Attachment B: 40 CFR 63, Subpart ZZZZZ, NESHAP for Iron and Steel Foundries Area Sources
Attachment C: 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines

SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary gray iron foundry.

Source Address:	500 Blaine Street, Michigan City, Indiana 46360
General Source Phone Number:	(219)879-6561
SIC Code:	3321 (Gray and ductile Iron Foundries)
County Location:	LaPorte
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

Metal Melting

(a) One (1) natural gas fired pre-heater, constructed in 2007, with a maximum heat input capacity of 15.8 MMBtu per hour and a maximum metal throughput of 20 tons per hour, controlled by a dust collector, identified as 39-DC-4, and exhausting through stack 39-DC-4.

(b) Four (4) electric induction furnaces, identified as EIF1, EIF2, EIF3, and EIF4, constructed in 1991, each capable of melting a maximum of 5 tons per hour of metal, with metal charging emissions controlled in part by a dust collector, identified as 39-DC-4, and exhausting through stack 39-DC-4, and with the melting and pouring emissions uncontrolled and exhausting inside the building;

Under 40 CFR Part 63, Subpart ZZZZZ, the electric induction furnaces are considered as affected facilities.

(c) One (1) electric holding furnace, constructed in 1971, with a maximum molten metal storage capacity of 20 tons, with the transfer of metal from the carrier ladle to the holding furnace, uncontrolled, and exhausting through stack 36-E-24.

Raw Material Handling and Preparation

(d) One (1) furnace charge handling system, constructed prior to 1977, modified in 1991, with a maximum capacity of 20 tons of metal per hour, controlled by a dust collector, identified as 39-DC-4, exhausting to stack 39-DC-4, and with uncontrolled emissions exhausting indoors.

Under 40 CFR Part 63, Subpart ZZZZZ, the furnace charge handling system is

considered as an affected facility.

(e) One (1) indoor scrap handling operation, constructed in 2001, controlled by a baghouse, identified as 39-DC-5, exhausting through stack 39-DC-5, and consisting of the following:

(1) One (1) metal scrap crusher, with a maximum scrap metal throughput of 15 tons per hour,

(2) One (1) rotary reclaimer, with maximum scrap metal throughput of 15 tons per hour and a maximum sand throughput of 10 tons per hour,

(3) One (1) sand and metal conveyor, with maximum scrap metal throughput of 15 tons per hour and a maximum sand throughput of 10 tons per hour, and

(4) One (1) enclosed conveyor system transporting spent sand to spent sand storage silo, with a maximum sand storage capacity of 100 tons and with a maximum sand throughput of 10 tons per hour.

(f) One (1) pneumatically conveyed raw sand storage silo, constructed in 2001, for the high speed continuous sand mixer, with a maximum sand storage capacity of 75 tons and a maximum sand throughput of 10 tons per hour, controlled by a baghouse, identified as 39-DC-5, and exhausting through stack 39-DC-5.

(g) Two (2) 200-ton capacity core and mold sand silos, identified as Silo#1 and Silo#2, both constructed in 1950, each with a maximum sand throughput of 16.8 tons of sand per hour, both controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8;

(h) One (1) enclosed 10-ton capacity core and mold sand hopper, elevator, and conveyor, constructed in 1975, associated with the no bake/pepset core making process, with a maximum sand throughput of 16.8 tons per hour, uncontrolled, and exhausting indoors.

Core Making

(i) One (1) cold box core making operation consisting of the following:

(1) One (1) cold box sand mixer, constructed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

(2) One (1) cold box core machine, constructed in 1975, with a maximum throughput of 5.8 tons per hour of sand, with VOC and HAP emissions controlled by an afterburner, identified as Afterburner J, and exhausting through stack 37-1-E-2.

(3) One (1) 10 ton capacity cold box line sand hopper and elevator, constructed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

Under 40 CFR Part 63, Subpart ZZZZZ, the cold box core making operation is considered as an affected facility.

(j) One (1) no bake/pepset core making operation, constructed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, exhausting through stack 36-1-DC-7/8, and consisting of:

(1) One (1) no bake/pepset sand mixer, and

(2) One (1) no bake/pepset line sand hopper.

Under 40 CFR Part 63, Subpart ZZZZZ, the no bake/pepset core making operation is considered as an affected facility.

Casting Operations

(k) One (1) mold making operation, identified as A-Line molding, consisting of the following:

(1) One (1) 50-ton capacity bond silo, identified as A-Line bond silo, constructed in 1984, with a maximum capacity of 200 tons of bond per hour, controlled by a bin vent, and exhausting indoors.

(l) One (1) mold making operation, identified as B-Line molding, consisting of the following:

(1) One (1) 88-ton capacity holding silo, identified as B-Line sand silo, constructed in 1987, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8,

(2) One (1) 40-ton capacity bond silo, identified as B-Line bond silo, constructed in 1987, controlled by a bin vent and exhausting inside the building;

The B-Line sand silo and B-Line bond silo are routed so that they join together at the B-Line muller.

(3) One (1) green sand muller, identified as B-Line muller, constructed in 1987, with a maximum green mold sand throughput of 100 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

(4) One (1) metal pouring operation, identified as B-Line pouring, constructed in 1986, with a maximum throughput of 9 tons per hour of molten metal and a maximum throughput of 4 tons of core sand per hour, uncontrolled, and exhausting through stack 36-E-5.

(5) One (1) metal cooling operation, identified as B-Line cooling, constructed in 1986, with a maximum throughput of 9 tons per hour of molten metal and a maximum throughput of 4 tons of core sand per hour, uncontrolled, and exhausting through four (4) roof vents, identified as 36-E-6, 36-E-6(2), 36-E-6(3), and 36-E-6(4);

(6) One (1) mold shakeout operation, identified as B-Line shakeout, constructed in 1987, with a maximum metal casting throughput of 9 tons per hour and a maximum throughput of 4 tons of core sand per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

(m) One (1) mold making operation, identified as Floor molding, consisting of the following:

(1) One (1) high speed continuous sand mixer, identified as Mixer, and associated high speed continuous sand mixer hopper, each constructed in 2001, with a maximum mold sand throughput of 42 tons per hour, with the hopper controlled by a baghouse, identified as 30-DC-6, and exhausting through stack 30-DC-6.

(2) One (1) metal pouring operation, identified as Floor pouring, constructed in 1922, with a maximum throughput of 6 tons per hour of molten metal, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, uncontrolled, and exhausting indoors.

(3) One (1) metal cooling operation, identified as Floor cooling, constructed in 1922, with a maximum throughput of 6 tons per hour of molten metal, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, uncontrolled, and exhausting indoors.

(4) One (1) mold shakeout operation, identified as Floor shakeout, constructed in 1922, with a maximum metal casting throughput of 6 tons per hour, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, uncontrolled, and exhausting indoors.

(n) One (1) casting sand-knockout station, identified as Floor knockout station, constructed in 1965, with a maximum throughput of 15 tons of iron castings per hour, controlled by a baghouse identified as 8-DC-2, and exhausting indoors.

Finishing Operations

(o) One (1) shot blast machine, identified as Wheelabrator shot blast, constructed in 1990, with a maximum throughput of 31 tons of iron castings per hour, consisting of the following:

(1) One (1) loading station, controlled by a baghouse, identified as 36-DC-9, exhausting indoors; and

(2) One (1) shot blast machine, controlled by a baghouse, identified as 36-DC-8, and exhausting indoors.

The Wheelabrator shot blast has a conveyor with hooks. Castings are lifted onto the hooks and are then moved into the shot blast machine via the loading station.

(p) One (1) shot blast machine, identified as Tumble shot blast, constructed in 1972, with a maximum throughput of 3,500 pounds of castings per hour, controlled by a baghouse, identified as 8-DC-2, and exhausting indoors.

(q) One (1) paint spray booth, identified as Spray painting, constructed in 1982, utilizing a high volume low pressure (HVLP) coating application system, using a maximum of 9.8 pounds of coating per hour to coat metal base boards and a maximum of 10 gallons per year of paint thinner, controlled by dry filters, and exhausting through stack 5-E-1.

Miscellaneous Operations

(r) One (1) graphite wash operation, constructed in 2013, with a maximum production rate of 6.00 molds per day, using 2.72 pounds per hour of graphite, and 3.33 pounds per hour of alcohol, uncontrolled, and exhausting indoors.

Graphite is mixed with alcohol, and then sprayed onto the mold. The mold is lit on fire, removing the alcohol, and leaving a graphite coat on the molds.

(s) One (1) top bond operation, constructed in 2013, with a maximum production rate of 25 gallons top bond per month, used on the B-Line to bond green sand material, using 1.46 pounds per hour of top bond material, uncontrolled, and exhausting indoors.

(t) Three (3) cold cleaner parts washers, each constructed in 2013, with a combined maximum usage of 2.40 gallons per day of cleaning material , uncontrolled, and exhausting indoors.

Common control

(1) Dust collector 39-DC-4 is common to the following:
  (i) Natural gas fired pre-heater,
  (ii) Electric induction furnaces (EIF1-EIF4), and
  (iii) Furnace charge handling system.

(2) Baghouse 39-DC-5 is common to the following:
  (i) Indoor scrap handling operation and
  (ii) Pneumatically conveyed raw sand storage silo.

(3) Baghouse 36-1-DC-7 is common to the following:
  (i) Silo#1
  (ii) Silo#2
  (iii) Cold box sand mixer,
  (iv) Cold box line sand hopper and elevator,
  (v) No bake/pepset core making operation,
  (vi) B-Line sand silo,
  (vii) B-Line muller, and
  (viiii) B-Line shakeout.

(4) Baghouse 8-DC-2 is common to the following
  (i) Floor knockout station and
  (ii) Tumble shot blast.

A.3 Specifically Regulated Insignificant Activities
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

  (a) Forty- six (46) indirect-fired natural gas combustion sources, constructed prior to 1998, and consisting of:

Emission Unit ID	Location	Capacity (MMBtu/hr)	Stack
7	Auditorium AHU	0.11	NG-S7
12	RTU South Engineering	0.28	NG-S12
13	RTU North Engineering	0.28	NG-S13
14	RTU Old Drafting Area	0.12	NG-S14
15	RTU Drafting Southwest	0.08	NG-S15
16	RTU Drafting Southeast	0.08	NG-S16
17	RTU Drafting Northwest	0.12	NG-S17
18	RTU Drafting Northeast	0.12	NG-S18
20	RTU Bathroom Next To Stairs	0.08	NG-S20
22	RTU IT Area	0.12	NG-S22
23	RTU South Offices Near Front Gate	0.09	NG-S23
24	RTU School	0.12	NG-S24
25	AHU Plant Manager	0.04	NG-S25
28	RTU Maintenance Offices East	0.06	NG-S28

Emission Unit ID	Location	Capacity (MMBtu/hr)	Stack
29	RTU QA Lab Office/Machine	0.12	NG-S29
32	RTU Melt Offices/Controls	0.20	NG-S32
35	RTU Trucking Offices	0.12	NG-S35
36	RTU Machine Shop Lockeroom	0.20	NG-S36
37	RTU QA Offices	0.14	NG-S37
38	RTU Cafeteria	0.30	NG-S38
40	Filter Rack QA Lab	0.11	NG-S40
43	Engineering MAU	0.97	NG-S43
44	Commercial Boiler Thermocycler West	0.40	NG-S44
45	Commercial Boiler Thermocycler Middle	0.40	NG-S45
46	Commercial Boiler Thermocycler East	0.40	NG-S46
47	Storeroom Unit Heater #1	0.15	NG-S47
48	Storeroom Unit Heater #2	0.10	NG-S48
49	Storeroom Unit Heater #3	0.20	NG-S49
56	QA Offices Unit Heater	0.12	NG-S56
51	Cleaning Building Unit Heater #1	0.18	NG-S51
52	Cleaning Building Unit Heater #2	0.18	NG-S52
3025	Compressor Room Rapid	0.75	NG-S3025
1	Roof Next Cooling Tower Southeast	3.58	NG-S1
2	South V Roof	3.58	NG-S2
3	Middle V Roof	3.58	NG-S3
4	North V Roof	3.58	NG-S4
5	Roof Over Compressor/Air Dryer Rooms	2.75	NG-S5
6	Roof Over Cleaning Room South End	3.58	NG-S6
7	Roof Machine Shop South Side	3.58	NG-S7
8	Roof Machine Shop North Side	3.58	NG-S8
9	Indoors Southeast Core Room	3.50	NG-S9
10	Indoors Southwest Core Room	2.76	NG-S10
11	On Ground Outside West Side	1.65	NG-S11
12	On Ground Outside Near Sand Silo	3.58	NG-S12
15	Roof West Side Above A Line	3.03	NG-S15
3144	Former Assembly Warehouse	1.65	NG-S3144

(b) Two (2) natural gas-fired boilers, identified as Office boiler and Town hall boiler, constructed in 2013, each with a maximum heat input capacity of 3.4 MMBtu per hour, uncontrolled, and exhausting indoors.

(c) Grinding operations, constructed prior to 2018, controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

(d) One (1) machining operation, identified as Machining, constructed prior to 1987, modified in 1987, consisting of:

(1) Thirty (30) machines performing tapping, drilling, and reaming on the metal castings, with a maximum metal casting throughput of 20 tons per hour;

(2) Five (5) reamer machines controlled by a baghouse, identified as 8-DC-1;

(3) Three (3) grinding machines, controlled by a baghouse; and

(4) Eight (8) CNC machines used for grinding, cutting and reaming, controlled by coolant.

(e) Six (6) emergency generators, uncontrolled, and exhausting outdoors, consisting of the following:

(1) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G1, constructed in 2006, with a maximum heat input rate of 0.04 MMBtu per hour;

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(2) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G2, constructed in 1999, with a maximum heat input rate of 0.03 MMBtu per hour;

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(3) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G3, constructed in 2009, with a maximum heat input rate of 0.20 MMBtu per hour;

Under NSPS Subpart JJJJ, this emergency generator is an affected facility.
Under NESHAP Subpart ZZZZ, this emergency generator is a new affected facility.

(4) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G4, constructed in 1970, with a maximum heat input rate of

0.19 MMBtu per hour;

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(5) One (1) diesel-fired 2-stroke lean-burn compression-ignition emergency RICE generator, identified as G5, constructed in 1998, with a maximum power output of 1005.75 horsepower (hp);

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(6) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G6, constructed in 2016, with a maximum heat input rate of 1.02 MMBtu per hour;

Under NSPS Subpart JJJJ, this emergency generator is an affected facility.
Under NESHAP Subpart ZZZZ, this emergency generator is a new affected facility.

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

(2) This stationary source also includes the following insignificant activities which are not specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Two natural gas-fired combustion units, identified as 1025 ladle heater and 1036 ladle heater, constructed prior to 1998, each with a maximum heat input capacity of 1.50 MMBtu per hour, uncontrolled, and exhausting indoors.

(b) Unpaved roads.

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T091-39531-00020, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

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

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and

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

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

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

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

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

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

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

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or Northwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northwest Regional Office phone: (219) 464-0233; fax: (219) 464-0553**.**

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

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

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

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

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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

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

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

(a) All terms and conditions of permits established prior to T091-39531-00020 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.

[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(1) That this permit contains a material mistake.

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

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

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

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the

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

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

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

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

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (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 preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

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

and

United States Environmental Protection Agency, Region 5
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.

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

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate Emission Limitations for Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

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

C.2 Opacity [326 IAC 5-1]

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

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

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

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

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

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

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2 (4) is not federally enforceable.

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4. The provisions of 326 IAC 1-7-1 (3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5 (a), (b), and (d) are not federally enforceable.

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1 (a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

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

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

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

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Pursuant to 326 IAC 3-6-4 (b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)] [40 CFR 64] [326 IAC 3-8]

(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 2-7-6 (1) by a "responsible official" as defined by 326 IAC 2-7-1 (35).

(c) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(d) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. 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 2-7-5][326 IAC 2-7-6]

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

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

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-7-5(11)] [40 CFR 68]

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

C.14 Response to Excursions or Exceedances [40 CFR 64] [326 IAC 3-8] [326 IAC 2-7-5] [326 IAC 2-7-6]

(I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, 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.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the 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. 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). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or 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.

(2) 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, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II) (a) (2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a Quality Improvement Plan (QIP). The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II) (c) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

(1) Failed to address the cause of the control device performance problems; or

(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II) (c) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

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

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

Pursuant to 326 IAC 2-6-3 (a) (1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4 (a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (33) (“Regulated pollutant, which is used only for purposes of Section 19 of this rule”) from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue

MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. 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 Part 70 permit.

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) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a “major modification” (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:

(A) A description of the project.

(B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:

(i) Baseline actual emissions;

(ii) Projected actual emissions;

(iii) Amount of emissions excluded under section 326 IAC 2-2-1 (pp) (2) (A) (iii) and/or 326 IAC 2-3-1 (kk) (2) (A) (iii); and

(iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

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

(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 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). 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.

(e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

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

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

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

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

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

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

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

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

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

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

SECTION D.0 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Entire Source

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

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

D.0.1 Hazardous Air Pollutants (HAPs) Minor Limits

In order to render the source an area source, the Permittee shall comply with the following:

Single HAP

(a) The total lead (Pb) emissions from the entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The total manganese (Mn) emissions from the entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(c) The total benzene emissions from entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(d) The total phenol emissions from entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Total HAPs

(e) The combined HAPs limit from the entire source shall not exceed 24.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits shall limit the source-wide total potential to emit of any single HAP to less than ten (10) tons per twelve (12) consecutive month period, and any combination of HAPs to less than twenty five (25) tons per twelve (12) consecutive month period, and render this an area source of HAPs.

Compliance Determination Requirements [326 IAC 2-7-5(1)]

D.0.2 Hazardous Air Pollutants (HAPs) Compliance Determination

HAP Emission limits in Condition D.0.1 shall be determined using the following equations:

(a) Lead emissions

$T_L = \sum T_{Pb} = \sum(EF_{Pb} * M_{Pb} * 1 \text{ ton}/2000 \text{ lbs})$

Where:

T_L = Total lead emissions from the source (tons per twelve (12) consecutive month period)

T_{Pb} = Total lead emissions from operations with Pb emissions (tons per twelve (12) consecutive month period)

EF_{Pb} = Emission Factor (pound lead per ton of metal throughput to operation with Pb emissions)

M_{Pb} = Total metal throughput to operation with Pb emissions (tons per twelve (12) consecutive month period)

Operations with Pb emissions	Emission Factor, EF_{Pb} (lb Pb/ ton of throughput)	Section D
Electric induction furnaces (EIF1-EIF4)	0.00016992	D.1
Furnace charge handling	0.00231	D.1
Metal scrap crusher	0.00019	D.2
Rotary reclaimer	0.00014	D.2
B-Line pouring	0.01617	D.5
B-Line cooling	0.00539	D.5
B-Line shakeout	0.00256	D.5
Floor pouring	0.01617	D.6
Floor cooling	0.00539	D.6
Floor shakeout	0.01232	D.6
Floor knockout station	0.0256	D.6
Wheelabrator shot blast	0.00137	D.7
Tumble shot blast	0.0013	D.7
Insignificant activities and fugitive emissions		

(b) Manganese emissions

$T_M = \sum T_{Mn} = \sum (EF_{Mn} * M_{Mn} * 1 \text{ ton}/2000 \text{ lbs})$

Where:

T_M = Total manganese emissions from the source (tons per twelve (12) consecutive month period)

T_{Mn} = Total manganese emissions from operations with Mn emissions (tons per twelve (12) consecutive month period)

EF_{Mn} = Emission Factor (pound manganese per ton of metal throughput to operation with Mn emissions)

M_{Mn} = Total metal throughput to operation with Mn emissions (tons per twelve (12) consecutive month period)

Operations with Mn emissions	Emission Factor, EF_{Mn} (lb Mn/ ton of throughput)	Section D
Electric induction furnaces (EIF1-EIF4)	0.00436	D.1
Furnace charge handling	0.0186	D.1
Metal scrap crusher	0.0155	D.2
Rotary reclaimer	0.0011	D.2
B-Line pouring	0.1302	D.5
B-Line cooling	0.0434	D.5
B-Line shakeout	0.0206	D.5
Floor pouring	0.1302	D.6
Floor cooling	0.0434	D.6
Floor shakeout	0.0992	D.6
Floor knockout station	0.0206	D.6
Wheelabrator shot blast	0.0111	D.7
Tumble shot blast	0.0105	D.7
Insignificant activities and fugitive emissions		

(c) Benzene emissions

$T_B = \sum T_{Be} = \sum (EF_{Be} * M_{Be} * 1 \text{ ton}/2000 \text{ lbs})$

Where:

T_B = Total benzene emissions from the source (tons per twelve (12) consecutive month period)
T_{Be} = Total benzene emissions from operations with benzene emissions (tons per twelve (12) consecutive month period)
EF_{Be} = Emission Factor (pound benzene per pound of resin throughput to operation with benzene emissions)
M_{Be} = Total resin throughput to operation with benzene emissions (pounds per twelve (12) consecutive month period)

Operations with benzene emissions	Emission Factor, EF_{Be} (lb benzene /lb resin)	Section D
Cold box core making	0.00535	D.3
No bake/pepset core making	0.00535	D.3
Green sand molding operation for molds used in the B-Line Benzene emissions from BL = 0.043 tons per month		D.5
Insignificant activities and fugitive emissions		

(d) Phenol emissions

$T_P = \sum T_{Ph} = \sum (EF_{Ph} * M_{Ph} * 1 \text{ ton}/2000 \text{ lbs})$

Where:

T_P = Total phenol emissions from the source (tons per twelve (12) consecutive month period)
T_{Ph}= Total phenol emissions from operations with phenol emissions (tons per twelve (12) consecutive month period)
EF_{Ph} = Emission Factor (pound phenol per pound of resin throughput to operation with phenol emissions)
M_{Ph} = Total resin throughput to operation with phenol emissions (pounds per twelve (12) consecutive month period)

Operations with Phenol emissions	Emission Factor, EF_{Ph} (lb phenol/ lb resin)	Section D
Cold box core making	0.0039	D.3
No bake/pepset core making	0.0039	D.3
Green sand molding operation for molds used in the B-Line Phenol emissions from BL = 0.043 tons per month		D.5
Insignificant activities and fugitive emissions		

(e) Total HAPs emissions

$T_T = \sum T_{HAP} = \sum (EF_{HAP} * M_{HAP} * 1 \text{ ton}/2000 \text{ lbs})$

Where:

T_T = Total HAP emissions from the source (tons per twelve (12) consecutive month period)
T_{HAP} = Total HAP emissions from operations with HAP emissions (tons per twelve (12) consecutive month period)
EF_{HAP} = Emission Factor (pound HAP per ton of metal throughput to operation

with HAP emissions / pound HAP per pound of resin throughput to operation with HAP emissions)

M_n = Total throughput to operation with HAP emissions (tons metal per twelve (12) consecutive month period/ pounds resin per twelve (12) consecutive month period)

Operations with HAP emissions	Emission Factor, EF_{HAP} (lb HAP/ ton of throughput)	Section D
Electric induction furnaces (EIF1-EIF4)	0.00495	D.1
Furnace charge handling	0.02273	D.1
Metal scrap crusher	0.01721	D.2
Rotary reclaimer	0.0013	D.2
B-Line pouring	0.1591	D.5
B-Line cooling	0.053	D.5
B-Line shakeout	0.0252	D.5
Floor pouring	0.1591	D.6
Floor cooling	0.053	D.6
Floor shakeout	0.12122	D.6
Floor knockout station	0.0252	D.6
Wheelabrator shot blast	0.0135	D.7
Tumble shot blast	0.0128	D.7
Operations with HAP emissions	Emission Factor, EF_{HAP} (lb HAP/ lb resin)	Section D
Cold box core making	0.01236	D.3
No bake/pepset core making	0.01236	D.3
High speed continuous sand mixer: no bake/pepset part I resin	0.0032	D.6
High speed continuous sand mixer: no bake/pepset part II resin	0.002	D.6
High speed continuous sand mixer: no bake/pepset catalyst	0.0698	D.6
Green sand molding operation for molds used in the B-Line HAP emissions from BL = 0.35 tons per month		D.5
Insignificant activities and fugitive emissions		

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

D.0.3 Record Keeping Requirement

(a) To document compliance with Condition D.0.1, the Permittee shall maintain records of metal throughput to the following:

Operation
Electric induction furnaces (EIF1-EIF4)
Furnace charge handling
Metal scrap crusher
Rotary reclaimer
B-Line pouring
B-Line cooling
B-Line shakeout
Floor pouring

Floor cooling
Floor shakeout
Floor knockout station
Wheelabrator shot blast
Tumble shot blast

(b) To document compliance with Condition D.0.1, the Permittee shall maintain records of resin throughput to the following:

Operation
Cold box core making
No bake/pepset core making
High speed continuous sand mixer: no bake/pepset part I resin
High speed continuous sand mixer: no bake/pepset part II resin
High speed continuous sand mixer: no bake/pepset catalyst

D.0.4 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.0.1 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Metal Melting

(a) One (1) natural gas fired pre-heater, constructed in 2007, with a maximum heat input capacity of 15.8 MMBtu per hour and a maximum metal throughput of 20 tons per hour, controlled by a dust collector, identified as 39-DC-4, and exhausting through stack 39-DC-4.

(b) Four (4) electric induction furnaces, identified as EIF1, EIF2, EIF3, and EIF4, constructed in 1991, each capable of melting a maximum of 5 tons per hour of metal, with metal charging emissions controlled in part by a dust collector, identified as 39-DC-4, and exhausting through stack 39-DC-4, and with the melting and pouring emissions uncontrolled and exhausting inside the building;

Under 40 CFR Part 63, Subpart ZZZZZ, the electric induction furnaces are considered as affected facilities.

(c) One (1) electric holding furnace, constructed in 1971, with a maximum molten metal storage capacity of 20 tons, with the transfer of metal from the carrier ladle to the holding furnace, uncontrolled, and exhausting through stack 36-E-24.

Raw Material Handling and Preparation

(d) One (1) furnace charge handling system, constructed prior to 1977, modified in 1991, with a maximum capacity of 20 tons of metal per hour, controlled by a dust collector, identified as 39-DC-4, exhausting to stack 39-DC-4, and with uncontrolled emissions exhausting indoors.

Under 40 CFR Part 63, Subpart ZZZZZ, the furnace charge handling system is considered as an affected facility.

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

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

D.1.1 PSD Minor Limit [326 IAC 2-2]

In order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 1991 modification, the Permittee shall comply with the following:

Metal throughput

(a) The throughput of charge materials (metal and additives) to following:

(i) Four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) and
(ii) Furnace charge handling system

shall not exceed 8,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

PM

(b) The PM emissions after control from melting and charging of the four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) shall not exceed 0.26 pound per ton of metal throughput.

(c) The PM emissions not captured and not controlled from melting and charging of the four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) shall not exceed 3.45 pound per ton of metal throughput.

PM10

(d) The PM10 emissions after control from melting and charging of the four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) shall not exceed 0.26 pound per ton of metal throughput.

(e) The PM10 emissions not captured and not controlled from melting and charging of the four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) shall not exceed 3.45 pound per ton of metal throughput.

Compliance with these limits shall limit the PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 (PSD) not applicable to the 1991 modification.

D.1.2 Particulate Emission Limitations for Manufacturing Processes [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 facilities listed below shall not exceed as specified when operating at the respective process weight rate:

Process Description	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)
Electric induction furnace EIF1	5.00	12.05
Electric induction furnace EIF2	5.00	12.05
Electric induction furnace EIF3	5.00	12.05
Electric induction furnace EIF4	5.00	12.05
Furnace charge handling system	20.00	30.51

The pound per hour limitation was calculated with the 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:

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

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their 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 [326 IAC 2-7-5(1)]

D.1.4 Testing Requirements [326 IAC 2-1.1-11]

(a) Electric induction furnaces ((EIF1- EIF4)
In order to demonstrate compliance with Conditions D.1.1(b), D.1.1(d), and D.1.2, the Permittee shall conduct PM and PM10 testing for the 4 electric induction furnaces (EIF1-EIF4) utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. The source will test the electric induction furnace for which the longest period of time has passed since the last valid compliance test

PM10 includes filterable and condensable PM.

(b) Furnace charge handling system
In order to demonstrate compliance with Conditions D.1.1(b), D.1.1(d), and D.1.2, the Permittee shall conduct PM and PM10 testing for the furnace charge handling system utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

PM10 includes filterable and condensable PM.

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

D.1.5 Particulate Control

In order to comply with Conditions D.0.1, and D.1.1, the associated control devices for particulate control shall be in operation at all times when the following emission units are in operation:

Emission Unit	Control Device
Electric induction furnace EIF1	Dust collector
Electric induction furnace EIF2	Dust collector
Electric induction furnace EIF3	Dust collector
Electric induction furnace EIF4	Dust collector
Furnace charge handling system	Dust collector

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

D.1.6 Parametric Monitoring

(a) The Permittee shall monitor and record the pressure drop across dust collector 39-DC-4, at least once per day when the electric induction furnaces and furnace charge handling system are in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range, the Permittee shall take reasonable response steps. The normal range for this unit is a pressure drop between 1.0 and 7.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.

(b) Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) 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.

(b) 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 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).

(c) For a single compartment baghouse controlling emissions from a batch process, the feed to the process 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 indicated by 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 Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.8 Record Keeping Requirement

(a) To document compliance with Condition D.1.1(a), the Permittee shall maintain records of the metal throughput to the four (4) electric induction furnaces and furnace charge handling system.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain records of the pressure drop readings across dust collector 39-DC-4 once per day 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) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.1.9 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.1(a) 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 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1(35).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Raw Material Handling and Preparation

(e) One (1) indoor scrap handling operation, constructed in 2001, controlled by a baghouse, identified as 39-DC-5, exhausting through stack 39-DC-5, and consisting of the following:

(1) One (1) metal scrap crusher, with a maximum scrap metal throughput of 15 tons per hour,

(2) One (1) rotary reclaimer, with maximum scrap metal throughput of 15 tons per hour and a maximum sand throughput of 10 tons per hour,

(3) One (1) sand and metal conveyor, with maximum scrap metal throughput of 15 tons per hour and a maximum sand throughput of 10 tons per hour, and

(4) One (1) enclosed conveyor system transporting spent sand to spent sand storage silo, with a maximum sand storage capacity of 100 tons and with a maximum sand throughput of 10 tons per hour.

(f) One (1) pneumatically conveyed raw sand storage silo, constructed in 2001, for the high speed continuous sand mixer, with a maximum sand storage capacity of 75 tons and a maximum sand throughput of 10 tons per hour, controlled by a baghouse, identified as 39-DC-5, and exhausting through stack 39-DC-5.

(g) Two (2) 200-ton capacity core and mold sand silos, identified as Silo#1 and Silo#2, both constructed in 1950, each with a maximum sand throughput of 16.8 tons of sand per hour, both controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8;

(h) One (1) enclosed 10-ton capacity core and mold sand hopper, elevator, and conveyor, constructed in 1975, associated with the no bake/pepset core making process, with a maximum sand throughput of 16.8 tons per hour, uncontrolled, and exhausting indoors.

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

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

D.2.1 PSD Minor Limit [326 IAC 2-2]

In order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 2001 modification, the Permittee shall comply with the following:

Metal throughput

(a) The throughput of metal to the indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor), shall not exceed 44,000 tons of metal per twelve (12) consecutive month period, with compliance determined at the end of each month.

Sand throughput

(b) The total throughput of sand to the following:

(i) High speed continuous sand mixer and its associated sand hopper (Section D.6),
(ii) Pneumatically conveyed raw sand storage silo and
(iii) Spent sand storage silo,

shall not exceed 42,574 tons of sand per twelve (12) consecutive month period, with compliance determined at the end of each month.

PM

(c) The total PM emissions after control from the following:

(i) Indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor),
(ii) Pneumatically conveyed raw sand storage silo
(iii) Enclosed conveyor system transporting spent sand to spent sand storage silo

shall not exceed 0.5 pound per ton of throughput.

PM10

(d) The total PM10 emissions after control from the following:

(i) Indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor),
(ii) Pneumatically conveyed raw sand storage silo
(iii) Enclosed conveyor system transporting spent sand to spent sand storage silo

shall not exceed 0.28 pound per ton of throughput.

Compliance with these limits combined with PM and PM10 limits from Section D.6, shall limit the PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively and render 326 IAC 2-2 (PSD) not applicable to the 2001 modification.

D.2.2 Particulate Emission Limitations for Manufacturing Processes [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 facilities listed below shall not exceed as specified when operating at the respective process weight rate:

Process Description	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)
Metal scrap crusher	15.00	25.16
Rotary reclaimer	25.00	35.43
Sand and metal conveyor	25.00	35.43
Enclosed conveyor system	10.00	19.18
Pneumatically conveyed sand storage silo	10.00	19.18
Silo #1	16.80	27.15
Silo #2	16.80	27.15
Core and mold sand hopper, elevator, and conveyor	16.80	27.15

The pound per hour limitation was calculated with the 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:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their 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 [326 IAC 2-7-5(1)]

D.2.4 Testing Requirements [326 IAC 2-1.1-11]

(a) Indoor scrap handling operation and pneumatically conveyed raw sand storage silo

In order to demonstrate compliance with Conditions D.2.1(c), D.2.1(d), and D.2.2, the Permittee shall conduct PM and PM10 testing for the indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor) and pneumatically conveyed raw sand storage silo, utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

PM10 includes filterable and condensable PM.

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

D.2.5 Particulate Control

In order to comply with Conditions D.0.1, D.2.1 and D.2.2, the associated control devices for particulate control shall be in operation at all times when the following emission units are in operation:

Emission Unit	Control Device
Rotary reclaimer	Baghouse
Sand and metal conveyor	Baghouse
Enclosed conveyor system	Baghouse
Pneumatically conveyed sand storage silo	Baghouse
Silo #1	Baghouse
Silo #2	Baghouse

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

D.2.6 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall monitor and record the pressure drop across baghouses, 39-DC-5 and 36-1-DC-7, at least once per day when the associated emission units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take reasonable response steps. The normal range is specified below unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.

Emission Unit/ Process	Baghouse	Range (inches of water)
Indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor)	39-DC-5	1.0 - 7.0
Pneumatically conveyed raw sand storage silo		

Emission Unit/ Process	Baghouse	Range (inches of water)
Silo#1	36-1-DC-7	
Silo#2		

(b) Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

The above compliance condition will also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring, for PM and PM10 for the rotary reclaimer.

D.2.7 Broken or Failed Bag Detection [40 CFR 64]

In the event that bag failure has been observed:

(a) 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.

(b) 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 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).

(c) For a single compartment baghouse controlling emissions from a batch process, the feed to the process 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 indicated by 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.

The above compliance condition will also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring, for PM and PM10 for the rotary reclaimer.

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

D.2.8 Record Keeping Requirement

(a) To document compliance with Condition D.2.1(a), the Permittee shall maintain records of the metal throughput to the indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor).

(b) To document compliance with Condition D.2.1(b), the Permittee shall maintain records of the sand throughput to the pneumatically conveyed raw sand storage silo.

(c) To document compliance with Condition D.2.6, the Permittee shall maintain records of the pressure drop readings across the following once per day during normal operation:

Baghouse
39-DC-5
36-1-DC-7

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).

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

D.2.9 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.2.1(a) and D.2.1(b) 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 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1(35).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Core Making

(i) One (1) cold box core making operation consisting of the following:

(1) One (1) cold box sand mixer, constructed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

(2) One (1) cold box core machine, constructed in 1975, with a maximum throughput of 5.8 tons per hour of sand, with VOC and HAP emissions controlled by an afterburner, identified as Afterburner J, and exhausting through stack 37-1-E-2.

(3) One (1) 10 ton capacity cold box line sand hopper and elevator, constructed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

Under 40 CFR Part 63, Subpart ZZZZZ, the cold box core making operation is considered as an affected facility.

(j) One (1) no bake/pepset core making operation, constructed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, exhausting through stack 36-1-DC-7/8, and consisting of:

(1) One (1) no bake/pepset sand mixer, and
(2) One (1) no bake/pepset line sand hopper.

Under 40 CFR Part 63, Subpart ZZZZZ, the no bake/pepset core making operation is considered as an affected facility.

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

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

D.3.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to SPM 091-20949-00020 issued on April 19, 2007, revised by Operating Permit T091-24543-00020, issued on November 24, 2008, and in order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 1979 modification, the Permittee shall comply with the following:

(a) The PM emissions after control from the no bake/pepset sand mixer of the no bake/pepset core making operation shall not exceed 1.9 pounds per hour.

(b) The PM emissions after control from the no bake/pepset line sand hopper of the no bake/pepset core making operation shall not exceed 1.9 pounds per hour.

Compliance with these limits shall limit the PM emissions to less than 25 tons per twelve (12) consecutive month period, and render the requirements of 326 IAC 2-2 (PSD) not applicable to the 1979 modification.

D.3.2 Particulate Emission Limitations for Manufacturing Processes [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 facilities listed below shall not exceed as specified when operating at the respective process weight rate:

Process Description	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)
Cold box sand mixer	5.80	13.31
Cold box core machine	5.80	13.31
Cold box line sand hopper and elevator	5.80	13.31
No bake/pepset sand mixer	6.00	13.62
No bake/pepset line sand hopper	6.00	13.62

The pound per hour limitation was calculated with the 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:

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

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their 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 [326 IAC 2-7-5(1)]

D.3.4 Testing Requirements [326 IAC 2-1.1-11]

(a) No bake/pepset core making operation
In order to demonstrate compliance with Conditions D.3.1 and D.3.2, the Permittee shall conduct PM testing for the following:
(i) no bake/pepset sand mixer and
(ii) no bake/pepset line sand hopper
utilizing methods approved by the Commissioner.

This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

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

D.3.5 Particulate Control

In order to comply with Conditions D.0.1, D.3.1 and D.3.2, the associated control devices for particulate control shall be in operation at all times when the following emission units are in operation:

Emission Unit	Control Device
Cold box sand mixer	Baghouse
Cold box line sand hopper and elevator	Baghouse
No bake/pepset sand mixer	Baghouse
No bake/pepset line sand hopper	Baghouse

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

D.3.6 Parametric Monitoring

(a) The Permittee shall monitor and record the pressure drop across Baghouse 36-1-DC-7, at least once per day when the associated emission units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take reasonable response steps. The normal range is specified below unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.

Emission Unit/ Process	Baghouse	Range (inches of water)
Cold box sand mixer	36-1-DC-7	2.0 - 8.0
Cold box line sand hopper and elevator		
No bake/pepset sand mixer		
No bake/pepset line sand hopper		

(b) Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.3.7 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) 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.

(b) 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 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).

(c) For a single compartment baghouse controlling emissions from a batch process, the feed to the process 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 indicated by 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 Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.8 Record Keeping Requirement

(a) To document compliance with Condition D.3.6, the Permittee shall maintain records of the pressure drop readings across Baghouse 36-1-DC-7 once per day 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).

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

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Casting Operations

(k) One (1) mold making operation, identified as A-Line molding, consisting of the following:

(1) One (1) 50-ton capacity bond silo, identified as A-Line bond silo, constructed in 1984, with a maximum capacity of 200 tons of bond per hour, controlled by a bin vent, and exhausting indoors.

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

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

D.4.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to SPM 091-20949-00020 issued on April 19, 2007, revised by Operating Permit T091-32850-00020, issued on October 23, 2013, and in order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 1984 modification, the Permittee shall comply with the following:

(a) The total throughput of bond to the A-Line bond silo shall not exceed 10,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM emissions before control from the A-Line bond silo shall not exceed 3.60 pound per ton of bond throughput.

(c) The PM10 emissions before control from the A-Line bond silo shall not exceed 0.54 pounds per ton of bond throughput.

Compliance with these limits shall limit PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 (PSD) not applicable to the 1984 modification.

D.4.2 Particulate Emission Limitations for Manufacturing Processes [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 facility listed below shall not exceed as specified when operating at the respective process weight rate:

Process Description	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)
A-Line bond silo	200.00	58.51

The pound per hour limitation was calculated with the following equations:

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:

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

D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their 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 [326 IAC 2-7-5(1)]

D.4.4 Particulate Control

In order to comply with Conditions D.4.1 and D.4.2, the associated control device for particulate control shall be in operation at all times when the following emission unit is in operation:

Emission Unit	Control Device
A-Line bond silo	Bin Vent

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

D.4.5 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations from the following:

Emission Unit	Control Device
A-Line bond silo	Bin Vent

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, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

The above compliance condition will also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring, for PM and PM10 for A-Line bond silo.

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

D.4.6 Record Keeping Requirement

(a) To document compliance with Condition D.4.1(a), the Permittee shall maintain records of the bond throughput to the A-Line bond silo.

(b) To document compliance with Condition D.4.5, the Permittee shall maintain a log of daily visible emission notations from the following

Emission Unit	Control Device

A-Line bond silo	Bin Vent

The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g. the process did not operate that day).

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

D.4.7 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.4.1(a) 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 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1(35).

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Casting Operations

(l) One (1) mold making operation, identified as B-Line molding, consisting of the following:

(1) One (1) 88-ton capacity holding silo, identified as B-Line sand silo, constructed in 1987, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8,

(2) One (1) 40-ton capacity bond silo, identified as B-Line bond silo, constructed in 1987, controlled by a bin vent and exhausting inside the building;

The B-Line sand silo and B-Line bond silo are routed so that they join together at the B-Line muller.

(3) One (1) green sand muller, identified as B-Line muller, constructed in 1987, with a maximum green mold sand throughput of 100 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

(4) One (1) metal pouring operation, identified as B-Line pouring, constructed in 1986, with a maximum throughput of 9 tons per hour of molten metal and a maximum throughput of 4 tons of core sand per hour, uncontrolled, and exhausting through stack 36-E-5.

(5) One (1) metal cooling operation, identified as B-Line cooling, constructed in 1986, with a maximum throughput of 9 tons per hour of molten metal and a maximum throughput of 4 tons of core sand per hour, uncontrolled, and exhausting through four (4) roof vents, identified as 36-E-6, 36-E-6(2), 36-E-6(3), and 36-E-6(4);

(6) One (1) mold shakeout operation, identified as B-Line shakeout, constructed in 1987, with a maximum metal casting throughput of 9 tons per hour and a maximum throughput of 4 tons of core sand per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

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

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

D.5.1 PM and PM10 PSD Minor Limits [326 IAC 2-2]

In order to render 326 IAC 2-2 (PSD) not applicable to the 1986 - 1987 modification, the Permittee shall comply with the following:

B-Line pouring, B-Line cooling, and B-Line shakeout; PM and PM10

(a) The total throughput of metal to the following operations that were constructed in a twelve month period from 1986 to 1987:

(i) B-Line pouring,
(ii) B-Line cooling, and
(iii) B-Line shakeout

shall not exceed 31,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM emissions before control from the following:

(i) B-Line pouring and
(ii) B-Line cooling

shall not exceed 0.27 pound per ton of metal throughput.

(c) The PM10 emissions before control from the following:

(i) B-Line pouring and
(ii) B-Line cooling

shall not exceed 0.27 pound per ton of metal throughput.

(d) The PM emissions after control from the B-Line shakeout shall not exceed 0.10 pound per ton of metal throughput.

(e) The PM10 emissions after control from the B-Line shakeout shall not exceed 0.10 pound per ton of metal throughput.

B-Line muller, B-Line sand silo, and B-Line bond silo: PM and PM10

(f) The total throughput of sand to the following:

(i) B-Line muller and
(ii) B-Line sand silo

shall not exceed 130,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(g) The total PM emissions after control from the following:

(i) B-Line muller and
(ii) B-Line sand silo

shall not exceed 0.25 pound per ton of sand throughput.

(h) The total PM10 emissions after control from the following:

(i) B-Line muller and
(ii) B-Line sand silo shall not exceed 0.13 pound per ton of sand throughput.

(i) The total throughput of bond to the B-Line bond silo shall not exceed 10,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(j) The total PM emissions before control from B-Line bond silo shall not exceed 0.25 pound per ton of bond throughput.

(k) The total PM10 emissions before control from B-Line bond silo shall not exceed 0.13 pound per ton of bond throughput.

Compliance with these limits shall limit the PM and PM10 emissions to less than 25 and 15 tons

per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 (PSD) not applicable to the 1986 -1987 modification.

D.5.2 CO PSD Minor Limits [326 IAC 2-2]

In order to render 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

(a) The total throughput of metal to the following operations, constructed in a twelve month period from 1986 to 1987:

(i) B-Line pouring,
(ii) B-Line cooling, and
(iii) B-Line shakeout

shall not exceed 31,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The total CO emissions from the following:

(i) B-Line pouring,
(ii) B-Line cooling, and
(iii) B-Line shakeout

shall not exceed 6.0 pounds per ton of metal throughput.

Compliance with the metal throughput limit shall limit the CO emissions to less than 100 tons per twelve (12) consecutive month period and render 326 IAC 2-2 (PSD) not applicable to the 1986 and 1987 modification.

D.5.3 VOC Limits [326 IAC 2-2][326 IAC 8-1-6]

In order to render 326 IAC 2-2 (PSD) and 326 IAC 8-1-6 not applicable, the Permittee shall comply with the following:

(a) The total throughput of metal to the following operations, constructed in a twelve month period from 1986 to 1987:

(i) B-Line pouring and
(ii) B-Line shakeout

shall not exceed 31,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The VOC emissions from the B-Line pouring operation shall not exceed 0.14 pounds of VOC per ton of metal charged.

(c) The VOC emissions from the B-Line shakeout shall not exceed 1.2 pounds of VOC per ton of metal charged.

Compliance with these limits shall limit the potential VOC emissions to less than 40 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable to the 1986 -1987 modification.

Compliance with these limits also renders 326 IAC-8-1-6 not applicable.

D.5.4 Particulate Emission Limitations for Manufacturing Processes [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 facilities listed below shall not exceed as specified when operating at the respective process weight rate:

Process Description	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)
B-Line sand silo	128.00	53.79
B-Line bond silo		
B-Line muller		
B-Line pouring	113.00	52.51
B-Line cooling	113.00	52.51
B-Line shakeout	113.00	52.51

The pound per hour limitation was calculated with the following equations:

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:

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

D.5.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their 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 [326 IAC 2-7-5(1)]

D.5.6 Particulate Control

In order to comply with Conditions D.0.1, D.5.1 and D.5.4, the associated control devices for particulate control shall be in operation at all times when the following emission units are in operation:

Emission Unit	Control Device
B-Line sand silo	Baghouse
B-Line bond silo	Bin Vent
B-Line muller	Baghouse

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

D.5.7 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations from the stack exhausts of the following:

B-Line bond silo

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, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

The above compliance condition will also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring, for PM and PM10 for the following:

B-Line sand silo
B-Line muller

D.5.8 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall monitor and record the pressure drop across Baghouse 36-1-DC-7, at least once per day when the associated emission units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take reasonable response steps. The normal range is specified below unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.

Emission Unit/ Process	Baghouse	Range (inches of water)
B-Line sand silo	36-1-DC-7	2.0 - 8.0
B-Line muller		
B-line shakeout		

(b) Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

The above compliance condition will also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring, for PM and PM10 for B-Line sand silo and B-Line muller.

D.5.9 Broken or Failed Bag Detection [40 CFR 64]

In the event that bag failure has been observed:

(a) 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.

(b) 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 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).

(c) For a single compartment baghouse controlling emissions from a batch process, the feed to the process 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 indicated by 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.

The above compliance condition will also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring, for PM and PM10 for the following:

B-Line sand silo
B-Line muller

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

D.5.10 Record Keeping Requirement

(a) To document compliance with Conditions D.5.1(a), D.5.2(a), and D.5.3(a), the Permittee shall maintain records of the metal throughput to the following:

B-Line pouring
B-Line cooling
B-Line shakeout

(b) To document compliance with Condition D.5.1(f), the Permittee shall maintain records of the sand throughput to the following:

B-Line sand silo
B-Line muller

(c) To document compliance with Condition D.5.1(i), the Permittee shall maintain records of the bond throughput to B-Line bond silo.

(d) To document compliance with Condition D.5.7, the Permittee shall maintain a log of daily visible emission notations of stack exhaust from the following:

B-Line bond silo

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. the process did not operate that day).

(e) To document compliance with Condition D.5.8, the Permittee shall maintain records of the pressure drop readings across the following once per day during normal operation:

Baghouse
36-1-DC-7

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).

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

D.5.11 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.5.1(a), D.5.1(f), D.5.1(i), D.5.2(a), and D.5.3(a) 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 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1(35).

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Casting Operations

(m) One (1) mold making operation, identified as Floor molding, consisting of the following:

(1) One (1) high speed continuous sand mixer, identified as Mixer, and associated high speed continuous sand mixer hopper, each constructed in 2001, with a maximum mold sand throughput of 42 tons per hour, with the hopper controlled by a baghouse, identified as 30-DC-6, and exhausting through stack 30-DC-6.

(2) One (1) metal pouring operation, identified as Floor pouring, constructed in 1922, with a maximum throughput of 6 tons per hour of molten metal, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, uncontrolled, and exhausting indoors.

(3) One (1) metal cooling operation, identified as Floor cooling, constructed in 1922, with a maximum throughput of 6 tons per hour of molten metal, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, uncontrolled, and exhausting indoors.

(4) One (1) mold shakeout operation, identified as Floor shakeout, constructed in 1922, with a maximum metal casting throughput of 6 tons per hour, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, uncontrolled, and exhausting indoors.

(n) One (1) casting sand-knockout station, identified as Floor knockout station, constructed in 1965, with a maximum throughput of 15 tons of iron castings per hour, controlled by a baghouse identified as 8-DC-2, and exhausting indoors.

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

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

D.6.1 PSD Minor Limit [326 IAC 2-2]

In order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 2001 modification, the Permittee shall comply with the following:

(a) The total throughput of sand to the following:

(i) High speed continuous sand mixer and its associated sand hopper,
(ii) Pneumatically conveyed raw sand storage silo (Section D.2) and
(iii) Spent sand storage silo (Section D.2)

shall not exceed 42,574 tons of sand per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The total PM emissions after control from the high speed continuous sand mixer (Mixer) and its associated sand hopper shall not exceed 0.01 pound per ton of sand throughput.

(c) The total PM10 emissions after control from the high speed continuous sand mixer

(Mixer) and its associated sand hopper shall not exceed 0.01 pound per ton of sand throughput.

Compliance with these limits combined with the PM and PM10 emissions from Section D.2, shall limit the PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively and render 326 IAC 2-2 (PSD) not applicable to the 2001 modification.

D.6.2 VOC Limits [326 IAC 2-2] [326 IAC 8-1-6]

In order to render 326 IAC 2-2 (PSD) and 326 IAC 8-1-6 not applicable, the Permittee shall comply with the following:

Resin:

(a) The resin usage for the high speed continuous sand mixer (Mixer) shall not exceed 471,789 pounds of resin per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The VOC emissions from the high speed continuous sand mixer (Mixer) shall not exceed 0.05 pound per pound of resin.

Catalyst

(c) The catalyst usage for the high speed continuous sand mixer (Mixer) shall not exceed 26,211 pounds of VOC catalyst per twelve (12) consecutive month period, with compliance determined at the end of each month.

(d) The VOC emissions from the high speed continuous sand mixer (Mixer) shall not exceed 1.0 pound per pound of catalyst.

Compliance with these limits shall limit the VOC emissions to less than 40 tons per twelve (12) consecutive month period, and render 326 IAC 2-2 (PSD) not applicable to the 2001 modification. Compliance with these limits also renders 326 IAC-8-1-6 not applicable.

D.6.3 Particulate Emission Limitations for Manufacturing Processes [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 facilities listed below shall not exceed as specified when operating at the respective process weight rate:

Process Description	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)	Equation used
High speed continuous sand mixer and associated sand hopper	42.00	42.97	(b)
Floor pouring	35.00	41.32	(b)
Floor cooling	35.00	41.32	(b)
Floor shakeout	35.00	41.32	(b)
Floor knockout station	15.00	25.16	(a)

The pound per hour limitation was calculated with 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:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = 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:

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

D.6.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their 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 [326 IAC 2-7-5(1)]

D.6.5 Testing Requirements [326 IAC 2-1.1-11]

(a) High speed continuous sand mixer and associated sand hopper
In order to demonstrate compliance with Conditions D.6.1(b), D.6.1(c), and D.6.3, the Permittee shall conduct PM and PM10 testing for the high speed continuous sand mixer and associated sand hopper utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

PM10 includes filterable and condensable PM.

(b) Floor knockout station
In order to demonstrate compliance with Condition D.6.3, the Permittee shall conduct PM and PM10 testing for the floor knockout station utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

PM10 includes filterable and condensable PM.

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

D.6.6 Particulate Control

In order to comply with Conditions D.0.1, D.6.1 and D.6.3, the associated control devices for particulate control shall be in operation at all times when the following emission units are in operation:

Emission Unit	Control Device
High speed continuous sand mixer and associated sand hopper	Baghouse
Floor knockout station	Baghouse

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

D.6.7 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall monitor and record the pressure drop across baghouses, 30-DC-6 and 8-DC-2, at least once per day when the associated emission units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take reasonable response steps. The normal range is specified below unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.

Emission Unit/ Process	Baghouse	Range (inches of water)
High speed continuous sand mixer and associated sand hopper	30-DC-6	1.0 - 7.0

Emission Unit/ Process	Baghouse	Range (inches of water)
Floor knockout station	8-DC-2	

(b) Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

The above compliance condition will also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring, for PM and PM10 for the floor knockout station.

D.6.8 Broken or Failed Bag Detection [40 CFR 64]

In the event that bag failure has been observed:

(a) 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.

(b) 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 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).

(c) For a single compartment baghouse controlling emissions from a batch process, the feed to the process 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 indicated by 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.

The above compliance condition will also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring, for PM and PM10 for the floor knockout station.

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

D.6.9 Record Keeping Requirement

(a) To document compliance with Condition D.6.1(a), the Permittee shall maintain records of the sand throughput to the high speed continuous sand mixer and associated sand hopper.

(b) To document compliance with Condition D.6.2(a), the Permittee shall maintain records of the resin usage for the high speed continuous sand mixer.

(c) To document compliance with Condition D.6.2(c), the Permittee shall maintain records of

the catalyst usage for the high speed continuous sand mixer.

(c) To document compliance with Condition D.6.7, the Permittee shall maintain records of the pressure drop readings across the following once per day during normal operation:

Baghouse
30-DC-6
8-DC-2

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).

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

D.6.10 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.6.1(a), D.6.2(a), and D.6.2(c) 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 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1(35).

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Finishing Operations

(o) One (1) shot blast machine, identified as Wheelabrator shot blast, constructed in 1990, with a maximum throughput of 31 tons of iron castings per hour, consisting of the following:

(1) One (1) loading station, controlled by a baghouse, identified as 36-DC-9, exhausting indoors; and

(2) One (1) shot blast machine, controlled by a baghouse, identified as 36-DC-8, and exhausting indoors.

The Wheelabrator shot blast has a conveyor with hooks. Castings are lifted onto the hooks and are then moved into the shot blast machine via the loading station.

(p) One (1) shot blast machine, identified as Tumble shot blast, constructed in 1972, with a maximum throughput of 3,500 pounds of castings per hour, controlled by a baghouse, identified as 8-DC-2, and exhausting indoors.

(q) One (1) paint spray booth, identified as Spray painting, constructed in 1982, utilizing a high volume low pressure (HVLP) coating application system, using a maximum of 9.8 pounds of coating per hour to coat metal base boards and a maximum of 10 gallons per year of paint thinner, controlled by dry filters, and exhausting through stack 5-E-1.

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

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

D.7.1 PSD Minor Limit [326 IAC 2-2]

In order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 1990 modification, the Permittee shall comply with the following:

(a) The throughput of metal to the Wheelabrator shot blast machine shall not exceed 44,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The total PM emissions after control from the Wheelabrator shot blast machine shall not exceed 0.7 pound per ton of metal throughput.

(c) The total PM10 emissions after control from the Wheelabrator shot blast machine shall not exceed 0.42 pound per ton of metal throughput.

Compliance with these limits shall limit the PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively and render 326 IAC 2-2 (PSD) not applicable to the 1990 modification.

D.7.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(1) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the facilities listed below shall not exceed as specified when operating at the respective process weight rate:

Process Description	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)	Equation used
Wheelabrator shot blast machine	31.00	40.24	(b)
Tumble shot blast machine	1.75	5.97	(a)

The pound per hour limitation was calculated with 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:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and P = 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:

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

(2) Pursuant to 326 IAC 6-3-2(d), the paint spray booth, identified as Spray painting, shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the permittee shall operate the control device in accordance with the manufacturer's specifications.

D.7.3 Preventive Maintenance Plan [326 IAC 2-7-5 (12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their 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 [326 IAC 2-7-5(1)]

D.7.4 Testing Requirements [326 IAC 2-1.1-11]

(a) Wheelabrator shot blast machine
In order to demonstrate compliance with Conditions D.7.1(b), D.7.1(c), and D.7.2, the Permittee shall conduct PM and PM10 testing for the Wheelabrator shot blast machine utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

PM10 includes filterable and condensable PM.

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

D.7.5 Particulate Control

In order to comply with Conditions D.0.1, D.7.1 and D.7.2, the associated control devices for particulate control shall be in operation at all times when the following emission units are in operation:

Emission Unit	Control Device
Wheelabrator shot blast machine	Baghouse
Tumble shot blast machine	Baghouse
Spray painting	Dry filters

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

D.7.6 Parametric Monitoring [40 CFR 64]

(a) The Permittee shall monitor and record the pressure drop across baghouses, 36-DC-8 and 8-DC-2, at least once per day when the associated emission units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take reasonable response steps. The normal range is specified below unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.

Emission Unit/ Process	Baghouse	Range (inches of water)
Wheelabrator shot blast machine	36-DC-8	2.0 - 8.0
Tumble shot blast machine	8-DC-2	1.0 - 7.0

(b) Section C - Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

The above compliance condition will also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring, for PM and PM10 for the Wheelabrator shot blast machine.

D.7.7 Broken or Failed Bag Detection [40 CFR 64]

In the event that bag failure has been observed:

(a) 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.

(b) 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 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).

(c) For a single compartment baghouse controlling emissions from a batch process, the feed to the process 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 indicated by 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.

The above compliance condition will also satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring, for PM and PM10 for the Wheelabrator shot blast machine.

D.7.8 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters controlling particulate emissions from spray painting. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the stack 5-E-1, while spray painting is in operation. If a condition exists which should result in a response step, the Permittee shall take a reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the exhausts from the stack 5-E-1, and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.7.9 Record Keeping Requirement

(a) To document compliance with Condition D.7.1(a), the Permittee shall maintain records of the metal throughput to the Wheelabrator shot blast machine.

(b) To document compliance with Condition D.7.6, the Permittee shall maintain records of the pressure drop readings across the following once per day during normal operation:

Baghouse
36-DC-8
8-DC-2

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) To document the compliance status with Condition D.7.8, the Permittee shall maintain a log of the daily and monthly inspections and weekly overspray observations. The Permittee shall include in its daily record when an inspection or observation is not taken and the reason for the lack of inspection or observation, (i.e. the process did not operate that day).

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

D.7.10 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.7.1(a) 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 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1(35).

SECTION D.8 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Miscellaneous Operations

(t) Three (3) cold cleaner parts washers, each constructed in 2013, with a combined maximum usage of 2.40 gallons per day of cleaning material , uncontrolled, and exhausting indoors.

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

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

D.8.1 Cold Cleaner Degreaser Control Equipment and Operating Requirements [326 IAC 8-3-2]

(a) Pursuant to 326 IAC 8-3-2(a), the owner or operator of the cold cleaner degreaser 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 subdivisions (3), (4), (6), and (7).
(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) Pursuant to 326 IAC 8-3-2(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 clauses (A) through (D) 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.8.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8(a), no person shall 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) degree Celsius (sixty-eight (68) degrees Fahrenheit).

D.8.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

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

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

D.8.4 Record Keeping Requirement

(1) All persons subject to the requirements of 326 8-3-8(a)(1) shall maintain each of the following records for each purchase:

(A) The name and address of the solvent supplier.

(B) The date of purchase (or invoice/bill date 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).

(c) All records required by subsection (b) shall be:

(2) Retained on-site or accessible electronically from the site for the most recent three (3) year period; and

(3) Reasonably accessible for an additional two (2) year period.

SECTION D.9 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities:

(a) Forty- six (46) indirect-fired natural gas combustion sources, constructed prior to 1998, and consisting of:

Emission Unit ID	Location	Capacity (MMBtu/hr)	Stack
7	Auditorium AHU	0.11	NG-S7
12	RTU South Engineering	0.28	NG-S12
13	RTU North Engineering	0.28	NG-S13
14	RTU Old Drafting Area	0.12	NG-S14
15	RTU Drafting Southwest	0.08	NG-S15
16	RTU Drafting Southeast	0.08	NG-S16
17	RTU Drafting Northwest	0.12	NG-S17
18	RTU Drafting Northeast	0.12	NG-S18
20	RTU Bathroom Next To Stairs	0.08	NG-S20
22	RTU IT Area	0.12	NG-S22
23	RTU South Offices Near Front Gate	0.09	NG-S23
24	RTU School	0.12	NG-S24
25	AHU Plant Manager	0.04	NG-S25
28	RTU Maintenance Offices East	0.06	NG-S28
29	RTU QA Lab Office/Machine	0.12	NG-S29
32	RTU Melt Offices/Controls	0.20	NG-S32
35	RTU Trucking Offices	0.12	NG-S35
36	RTU Machine Shop Lockeroom	0.20	NG-S36
37	RTU QA Offices	0.14	NG-S37
38	RTU Cafeteria	0.30	NG-S38
40	Filter Rack QA Lab	0.11	NG-S40
43	Engineering MAU	0.97	NG-S43
44	Commercial Boiler Thermocycler West	0.40	NG-S44
45	Commercial Boiler Thermocycler Middle	0.40	NG-S45
46	Commercial Boiler Thermocycler East	0.40	NG-S46
47	Storeroom Unit Heater #1	0.15	NG-S47
48	Storeroom Unit Heater #2	0.10	NG-S48
49	Storeroom Unit Heater #3	0.20	NG-S49

56	QA Offices Unit Heater	0.12	NG-S56
51	Cleaning Building Unit Heater #1	0.18	NG-S51
52	Cleaning Building Unit Heater #2	0.18	NG-S52
3025	Compressor Room Rapid	0.75	NG-S3025
1	Roof Next Cooling Tower Southeast	3.58	NG-S1
2	South V Roof	3.58	NG-S2
3	Middle V Roof	3.58	NG-S3
4	North V Roof	3.58	NG-S4
5	Roof Over Compressor/Air Dryer Rooms	2.75	NG-S5
6	Roof Over Cleaning Room South End	3.58	NG-S6
7	Roof Machine Shop South Side	3.58	NG-S7
8	Roof Machine Shop North Side	3.58	NG-S8
9	Indoors Southeast Core Room	3.50	NG-S9
10	Indoors Southwest Core Room	2.76	NG-S10
11	On Ground Outside West Side	1.65	NG-S11
12	On Ground Outside Near Sand Silo	3.58	NG-S12
15	Roof West Side Above A Line	3.03	NG-S15
3144	Former Assembly Warehouse	1.65	NG-S3144

(b) Two (2) natural gas-fired boilers, identified as Office boiler and Town hall boiler, constructed in 2013, each with a maximum heat input capacity of 3.4 MMBtu per hour, uncontrolled, and exhausting indoors.

(c) Grinding operations, constructed prior to 2018, controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

(d) One (1) machining operation, identified as Machining, constructed prior to 1987, modified in 1987, consisting of:

(1) Thirty (30) machines performing tapping, drilling, and reaming on the metal castings, with a maximum metal casting throughput of 20 tons per hour;

(2) Five (5) reamer machines controlled by a baghouse, identified as 8-DC-1;

(3) Three (3) grinding machines, controlled by a baghouse; and

(4) Eight (8) CNC machines used for grinding, cutting and reaming, controlled by coolant.

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

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

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

D.9.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2]

Pursuant to 326 IAC 6-2-4, the PM emissions from the following indirect heating facilities shall not exceed pounds per MMBtu heat input as specified:

Emission Unit ID	Location	Capacity (MMBtu/hr)	Limit (lb PM/ MMBtu)
7	Auditorium AHU	0.11	
12	RTU South Engineering	0.28	
13	RTU North Engineering	0.28	
14	RTU Old Drafting Area	0.12	
15	RTU Drafting Southwest	0.08	
16	RTU Drafting Southeast	0.08	
17	RTU Drafting Northwest	0.12	
18	RTU Drafting Northeast	0.12	
20	RTU Bathroom Next To Stairs	0.08	
22	RTU IT Area	0.12	
23	RTU South Offices Near Front Gate	0.09	
24	RTU School	0.12	
25	AHU Plant Manager	0.04	
28	RTU Maintenance Offices East	0.06	
29	RTU QA Lab Office/Machine	0.12	
32	RTU Melt Offices/Controls	0.20	
35	RTU Trucking Offices	0.12	
36	RTU Machine Shop Lockeroom	0.20	
37	RTU QA Offices	0.14	
38	RTU Cafeteria	0.30	
40	Filter Rack QA Lab	0.11	
43	Engineering MAU	0.97	
44	Commercial Boiler Thermocycler West	0.40	
45	Commercial Boiler Thermocycler Middle	0.40	
46	Commercial Boiler Thermocycler East	0.40	0.38

Emission Unit ID	Location	Capacity (MMBtu/hr)	Limit (lb PM/ MMBtu)
47	Storeroom Unit Heater #1	0.15	
48	Storeroom Unit Heater #2	0.10	
49	Storeroom Unit Heater #3	0.20	
56	QA Offices Unit Heater	0.12	
51	Cleaning Building Unit Heater #1	0.18	
52	Cleaning Building Unit Heater #2	0.18	
3025	Compressor Room Rapid	0.75	
1	Roof Next Cooling Tower Southeast	3.58	
2	South V Roof	3.58	
3	Middle V Roof	3.58	
4	North V Roof	3.58	
5	Roof Over Compressor/Air Dryer Rooms	2.75	
6	Roof Over Cleaning Room South End	3.58	
7	Roof Machine Shop South Side	3.58	
8	Roof Machine Shop North Side	3.58	
9	Indoors Southeast Core Room	3.50	
10	Indoors Southwest Core Room	2.76	
11	On Ground Outside West Side	1.65	
12	On Ground Outside Near Sand Silo	3.58	
15	Roof West Side Above A Line	3.03	
3144	Former Assembly Warehouse	1.65	
Office boiler	-	3.4	0.37
Town hall boiler	-	3.4	0.37

D.9.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(1) Pursuant to 326 IAC 6-3-2 the allowable PM emission rate from the facilities listed below shall not exceed the pounds per hour limitations as calculated with the following formula:

Brazing equipment, cutting torches, soldering equipment, and welding equipment
Machining operation

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:

$E = 4.10 P^{0.67}$ Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(2) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emission rate from the grinding and machining operations with a process weight rate less than 100 pounds per hour shall not exceed 0.551pounds per hour.

D.9.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these facilities and their 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 [326 IAC 2-7-5(1)]

D.9.4 Particulate Control

In order to comply with Condition D.9.2, the associated control devices for particulate control shall be in operation at all times when the following emission units are in operation:

Six (6) reamer machines
Three (3) grinding machines
Five (5) reamer machines
Three (3) grinding machines

SECTION E.1 NSPS

Emissions Unit Description:

Insignificant Activities

(e)(3) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G3, constructed in 2009, with a maximum heat input rate of 0.20 MMBtu per hour;

Under NSPS Subpart JJJJ, this emergency generator is an affected facility.
Under NESHAP Subpart ZZZZ, this emergency generator is a new affected facility.

(e)(6) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G6, constructed in 2016, with a maximum heat input rate of 1.02 MMBtu per hour;

Under NSPS Subpart JJJJ, this emergency generator is an affected facility.
Under NESHAP Subpart ZZZZ, this emergency generator is a new affected facility.

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

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

E.1.1 General Provisions Relating to New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines [40 CFR Part 60, Subpart A] [326 IAC 12-1]

(a) Pursuant to 40 CFR 60.4230, the Registrant shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 60, Subpart JJJJ.

(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

E.1.2 New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines [40 CFR Part 60, Subpart JJJJ] [326 IAC 12-1]

Pursuant to CFR Part 60, Subpart JJJJ, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart JJJJ (included as Attachment A of this permit), which are incorporated by reference as 326 IAC 12:

(i) 40 CFR 60.4230(a)(4)(iv) and (c)
(ii) 40 CFR 60.4233(d)
(iii) 40 CFR 60.4234
(iv) 40 CFR 60.4236(c)
(v) 40 CFR 60.4237
(vi) 40 CFR 60.4243(b),(d), and (e)
(vii) 40 CFR 60.4245(a) and (b)

(viii) 40 CFR 60.4246
(ix) 40 CFR 60.4248
(x) Tables 1 and 3

SECTION E.2 NESHAP

Emissions Unit Description:

Metal Melting

(a) One (1) natural gas fired pre-heater, constructed in 2007, with a maximum heat input capacity of 15.8 MMBtu per hour and a maximum metal throughput of 20 tons per hour, controlled by a dust collector, identified as 39-DC-4, and exhausting through stack 39-DC-4.

(b) Four (4) electric induction furnaces, identified as EIF1, EIF2, EIF3, and EIF4, constructed in 1991, each capable of melting a maximum of 5 tons per hour of metal, with metal charging emissions controlled in part by a dust collector, identified as 39-DC-4, and exhausting through stack 39-DC-4, and with the melting and pouring emissions uncontrolled and exhausting inside the building;

Under 40 CFR Part 63, Subpart ZZZZZ, the electric induction furnaces are considered as affected facilities.

(c) One (1) electric holding furnace, constructed in 1971, with a maximum molten metal storage capacity of 20 tons, with the transfer of metal from the carrier ladle to the holding furnace, uncontrolled, and exhausting through stack 36-E-24.

Raw Material Handling and Preparation

(d) One (1) furnace charge handling system, constructed prior to 1977, modified in 1991, with a maximum capacity of 20 tons of metal per hour, controlled by a dust collector, identified as 39-DC-4, exhausting to stack 39-DC-4, and with uncontrolled emissions exhausting indoors.

Under 40 CFR Part 63, Subpart ZZZZZ, the furnace charge handling system is considered as an affected facility.

Core Making

(i) One (1) cold box core making operation consisting of the following:

(1) One (1) cold box sand mixer, constructed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

(2) One (1) cold box core machine, constructed in 1975, with a maximum throughput of 5.8 tons per hour of sand, with VOC and HAP emissions controlled by an afterburner, identified as Afterburner J, and exhausting through stack 37-1-E-2.

(3) One (1) 10 ton capacity cold box line sand hopper and elevator, constructed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

Under 40 CFR Part 63, Subpart ZZZZZ, the cold box core making operation is considered as an affected facility.

(j) One (1) no bake/pepset core making operation, constructed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, exhausting through stack 36-1-DC-7/8, and consisting of:

(1) One (1) no bake/pepset sand mixer, and
(2) One (1) no bake/pepset line sand hopper.

Under 40 CFR Part 63, Subpart ZZZZZ, the no bake/pepset core making operation is considered as an affected facility.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

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

(a) Pursuant to 40 CFR 63.1 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, for the emission units listed above, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZZ.

(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

E.2.2 Iron and Steel Foundries Area Sources NESHAP [40 CFR Part 63, Subpart ZZZZZ] [326 IAC 20-1]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZZ (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 20-92 for the emission units listed above:

(i) 40 CFR 63.10880(a), (b)(1), (f)
(ii) 40 CFR 63.10881(a), (d)(2)
(iii) 40 CFR 63.10885(a)(1), (b)(4)
(iv) 40 CFR 63.10886
(v) 40 CFR 63.10899(a), (b)(1), (4) through (6),
(vi) 40 CFR 63.10905
(vii) 40 CFR 63.10906

SECTION E.3 NESHAP

Emissions Unit Description:

Insignificant Activities:

(e) Six (6) emergency generators, uncontrolled, and exhausting outdoors, consisting of the following:

(1) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G1, constructed in 2006, with a maximum heat input rate of 0.04 MMBtu per hour;

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(2) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G2, constructed in 1999, with a maximum heat input rate of 0.03 MMBtu per hour;

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(3) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G3, constructed in 2009, with a maximum heat input rate of 0.20 MMBtu per hour;

Under NSPS Subpart JJJJ, this emergency generator is an affected facility.
Under NESHAP Subpart ZZZZ, this emergency generator is a new affected facility.

(4) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G4, constructed in 1970, with a maximum heat input rate of 0.19 MMBtu per hour;

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(5) One (1) diesel-fired 2-stroke lean-burn compression-ignition emergency RICE generator, identified as G5, constructed in 1998, with a maximum power output of 1005.75 horsepower (hp);

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(6) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G6, constructed in 2016, with a maximum heat input rate of 1.02 MMBtu per hour;

Under NSPS Subpart JJJJ, this emergency generator is an affected facility.
Under NESHAP Subpart ZZZZ, this emergency generator is a new affected facility.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

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

(a) Pursuant to 40 CFR 63.1 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, for the emission units listed above, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ.

(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

E.3.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment C of this permit), which are incorporated by reference as 326 IAC 20-82, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ:

(1) Generators G1, G2, G4, and G5

(i) 40 CFR 63.6580
(ii) 40 CFR 63.6585(a), (c), and (d)
(iii) 40 CFR 63.6590(a)(1)(iii)
(iv) 40 CFR 63.6595(a)(1) and (c)
(v) 40 CFR 63.6603(a)
(vi) 40 CFR 63.6605
(vii) 40 CFR 63.6625(e)(3),(f),(h), and (j)
(viii) 40 CFR 63.6640(a),(b), (e) and (f)
(ix) 40 CFR 63.6645 (a)(5)
(x) 40 CFR 63.6655 (a)(4), (d), (e) and (f)
(xi) 40 CFR 63.6660
(xii) 40 CFR 63.6665
(xiii) 40 CFR 63.6670
(xiv) 40 CFR 63.6675
(xv) Tables 2d, 6 and 8

(2) Generators G3 and G6

(i) 40 CFR 63.6580
(ii) 40 CFR 63.6585(a), (c), and (d)
(iii) 40 CFR 63.6590(a)(2)(iii)
(iv) 40 CFR 63.6590(c)(1)
(v) 40 CFR 63.6595(a)(7)
(vi) 40 CFR 63.6665
(vii) 40 CFR 63.6670
(viii) 40 CFR 63.6675

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

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

Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020

This form consists of 2 pages **Page 1 of 2**

□ This is an emergency as defined in 326 IAC 2-7-1(12)

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

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

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

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: Entire source
Parameter: Lead emissions
Limit: The total lead (Pb) emissions from the entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: Entire source
Parameter: Manganese emissions
Limit: The total manganese (Mn) emissions from the entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: Entire source
Parameter: Benzene emissions
Limit: The total benzene emissions from entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: Entire source
Parameter: Phenol emissions
Limit: The total phenol emissions from entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: Entire source
Parameter: Total HAPs
Limit: The combined HAPs limit from the entire source shall not exceed 24.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: Electric induction furnaces (EIF1- EIF4) and furnace charge handling system
Parameter: Metal and additives throughput
Limit: The throughput of charge materials (metal and additives) to following:

(i) Four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) and
(ii) Furnace charge handling system

shall not exceed 8,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: Indoor scrap handling operation
Parameter: Metal throughput
Limit: The throughput of metal to the indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor), shall not exceed 44,000 tons of metal per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: High speed continuous sand mixer and its associated sand hopper, pneumatically conveyed raw sand storage silo, and spent sand storage silo
Parameter: Sand throughput
Limit: The total throughput of sand to the following:

(i) High speed continuous sand mixer and its associated sand hopper,
(ii) Pneumatically conveyed raw sand storage silo, and
(iii) Spent sand storage silo

shall not exceed 42,574 tons of sand per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: A-Line bond silo
Parameter: Bond throughput
Limit: The total throughput of bond to the A-Line bond silo shall not exceed 10,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: B-Line pouring, B-Line cooling, and B-Line shakeout
Parameter: Metal throughput
Limit: The total throughput of metal to the following operations that were constructed in a twelve month period from 1986 to 1987:

(i) B-Line pouring,
(ii) B-Line cooling, and
(iii) B-Line shakeout

shall not exceed 31,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: B-Line muller and B-Line bond silo
Parameter: Sand throughput
Limit: The total throughput of sand to the the following:

(i) B-Line muller and
(ii) B-Line sand silo

shall not exceed 130,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: B-Line sand silo
Parameter: Bond throughput
Limit: The total throughput of bond to the B-Line bond silo shall not exceed 10,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: High speed continuous sand mixer
Parameter: Resin usage
Limit: The resin usage for the high speed continuous sand mixer shall not exceed 471,789 pounds of resin per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: High speed continuous sand mixer
Parameter: Catalyst usage
Limit: The catalyst usage for the high speed continuous sand mixer shall not exceed 26,211 pounds of VOC catalyst per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020
Facility: Wheelabrator shot blast machine
Parameter: Metal throughput
Limit: The throughput of metal to the Wheelabrator shot blast machine shall not exceed 44,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)

☐ No deviation occurred in this quarter.

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

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

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

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Permit No.: T091-39531-00020

Months: _____ to _____ Year: _____

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:	

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

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

Attachment A

Part 70 Operating Permit No: T091-39531-00020

[Downloaded from the eCFR on October 31, 2016]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

SOURCE: 73 FR 3591, Jan. 18, 2008, unless otherwise noted.

What This Subpart Covers

§60.4230 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary SI ICE with a maximum engine power less than or equal to 19 kilowatt (KW) (25 horsepower (HP)) that are manufactured on or after July 1, 2008.

(2) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline fueled or that are rich burn engines fueled by liquefied petroleum gas (LPG), where the date of manufacture is:

(i) On or after July 1, 2008; or

(ii) On or after January 1, 2009, for emergency engines.

(3) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG, where the manufacturer participates in the voluntary manufacturer certification program described in this subpart and where the date of manufacture is:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) On or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

(iii) On or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) On or after January 1, 2009, for emergency engines.

(4) Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;

(iii) on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

(5) Owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006.

(6) The provisions of §60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006.

(b) The provisions of this subpart are not applicable to stationary SI ICE being tested at an engine test cell/stand.

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

(d) For the purposes of this subpart, stationary SI ICE using alcohol-based fuels are considered gasoline engines.

(e) Stationary SI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR parts 90 and 1048, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(f) Owners and operators of facilities with internal combustion engines that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37972, June 28, 2011]

Emission Standards for Manufacturers

§60.4231 What emission standards must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing such engines?

(a) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008 to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as follows:

If engine displacement is * * *	**and manufacturing dates are * * ***	**the engine must meet emission standards and related requirements for nonhandheld engines under * * ***
(1) below 225 cc	July 1, 2008 to December 31, 2011	40 CFR part 90.
(2) below 225 cc	January 1, 2012 or later	40 CFR part 1054.
(3) at or above 225 cc	July 1, 2008 to December 31, 2010	40 CFR part 90.
(4) at or above 225 cc	January 1, 2011 or later	40 CFR part 1054.

(b) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that use gasoline and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE with a maximum engine power greater than 25 HP and less than 130 HP that use gasoline and that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cubic centimeters (cc) that use gasoline to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate.

(c) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that are rich burn engines that use LPG and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP that are rich burn engines that use LPG and that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc that are rich burn engines that use LPG to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate.

(d) Stationary SI internal combustion engine manufacturers who choose to certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) under the voluntary manufacturer certification program described in this subpart must certify those engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers who choose to certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP (except gasoline and rich burn engines that use LPG), must certify those engines to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc (except gasoline and rich burn engines that use LPG) to the certification emission standards for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate. For stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) manufactured prior to January 1, 2011, manufacturers may choose to certify these engines to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP.

(e) Stationary SI internal combustion engine manufacturers who choose to certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) under the voluntary manufacturer certification program described in this subpart must certify those engines to the emission standards in Table 1 to this subpart. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) that are lean burn engines that use LPG to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. For stationary SI ICE with a maximum engine power greater than or equal to 100 HP (75 KW) and less than 500 HP (373 KW) manufactured prior to January 1, 2011, and for stationary SI ICE with a maximum engine power greater than or equal to 500 HP (373 KW) manufactured prior to July 1, 2010, manufacturers may choose to certify these engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048 applicable to engines that are not severe duty engines.

(f) Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, to the extent they apply to equipment manufacturers.

(g) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary SI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed stationary SI ICE.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59175, Oct. 8, 2008; 76 FR 37973, June 28, 2011; 78 FR 6697, Jan. 30, 2013]

§60.4232 How long must my engines meet the emission standards if I am a manufacturer of stationary SI internal combustion engines?

Engines manufactured by stationary SI internal combustion engine manufacturers must meet the emission standards as required in §60.4231 during the certified emissions life of the engines.

Emission Standards for Owners and Operators

§60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

(a) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, must comply with the emission standards in §60.4231(a) for their stationary SI ICE.

(b) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that use gasoline must comply with the emission standards in §60.4231(b) for their stationary SI ICE.

(c) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that are rich burn engines that use LPG must comply with the emission standards in §60.4231(c) for their stationary SI ICE.

(d) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards.

(e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

(f) Owners and operators of any modified or reconstructed stationary SI ICE subject to this subpart must meet the requirements as specified in paragraphs (f)(1) through (5) of this section.

(1) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with emission standards in §60.4231(a) for their stationary SI ICE. Engines with a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in §60.4231(a) applicable to engines manufactured on July 1, 2008.

(2) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline engines and are modified or reconstructed after June 12, 2006, must comply with the emission standards in §60.4231(b) for their stationary SI ICE. Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in §60.4231(b) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).

(3) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in §60.4231(c). Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in §60.4231(c) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).

(4) Owners and operators of stationary SI natural gas and lean burn LPG engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (d) or (e) of this section, except that such owners and operators of non-emergency engines and emergency engines greater than or equal to 130 HP must meet a nitrogen oxides (NO_X) emission standard of 3.0 grams per HP-hour (g/HP-hr), a CO emission standard of 4.0 g/HP-hr (5.0 g/HP-hr for non-emergency engines less than 100 HP), and a volatile organic compounds (VOC) emission standard of 1.0 g/HP-hr, or a NO_X emission standard of 250 ppmvd at 15 percent oxygen (O_2), a CO emission standard 540 ppmvd at 15 percent O_2 (675 ppmvd at 15 percent O_2 for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O_2, where the date of manufacture of the engine is:

(i) Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP (except lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);

(ii) Prior to July 1, 2008, for non-emergency engines with a maximum engine power less than 500 HP;

(iii) Prior to January 1, 2009, for emergency engines;

(iv) Prior to January 1, 2008, for non-emergency lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.

(5) Owners and operators of stationary SI landfill/digester gas ICE engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (e) of this section for stationary landfill/digester gas engines. Engines with maximum engine power less than 500 HP and a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE with a maximum engine power less than 500 HP manufactured on July 1, 2008. Engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines greater than or equal to 500 HP and less than 1,350 HP) and a date of manufacture prior to July 1, 2007 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE with a maximum engine power greater than or equal to 500 HP (except lean burn engines greater than or equal to 500 HP and less than 1,350 HP) manufactured on July 1, 2007. Lean burn engines greater than or equal to 500 HP and less than 1,350 HP with a date of manufacture prior to January 1, 2008 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE that are lean burn engines greater than or equal to 500 HP and less than 1,350 HP and manufactured on January 1, 2008.

(g) Owners and operators of stationary SI wellhead gas ICE engines may petition the Administrator for approval on a case-by-case basis to meet emission standards no less stringent than the emission standards that apply to stationary emergency SI engines greater than 25 HP and less than 130 HP due to the presence of high sulfur levels in the fuel, as specified in Table 1 to this subpart. The request must, at a minimum, demonstrate that the fuel has high sulfur levels that prevent the use of aftertreatment controls and also that the owner has reasonably made all attempts possible to obtain an engine that will meet the standards without the use of aftertreatment controls. The petition must request the most stringent standards reasonably applicable to the engine using the fuel.

(h) Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of this section.

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37973, June 28, 2011]

§60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

Other Requirements for Owners and Operators

§60.4235 What fuel requirements must I meet if I am an owner or operator of a stationary SI gasoline fired internal combustion engine subject to this subpart?

Owners and operators of stationary SI ICE subject to this subpart that use gasoline must use gasoline that meets the per gallon sulfur limit in 40 CFR 80.195.

§60.4236 What is the deadline for importing or installing stationary SI ICE produced in previous model years?

(a) After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233.

(b) After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010.

(c) For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.

(d) In addition to the requirements specified in §§60.4231 and 60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a), (b), and (c) of this section, after the date specified in paragraph (a), (b), and (c) of this section.

(e) The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location.

§60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

(a) Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

(b) Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

(c) If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine.

Compliance Requirements for Manufacturers

§60.4238 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines ≤19 KW (25 HP) or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(a) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4239 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that use gasoline or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(b) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4240 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that are rich burn engines that use LPG or a manufacturer of equipment containing such engines?

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(c) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

[73 FR 59176, Oct. 8, 2008]

§60.4241 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines participating in the voluntary certification program or a manufacturer of equipment containing such engines?

(a) Manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to certify their engines to the emission standards in §60.4231(d) or (e), as applicable, under the voluntary certification program described in this

subpart. Manufacturers who certify their engines under the voluntary certification program must meet the requirements as specified in paragraphs (b) through (g) of this section. In addition, manufacturers of stationary SI internal combustion engines who choose to certify their engines under the voluntary certification program, must also meet the requirements as specified in §60.4247.

(b) Manufacturers of engines other than those certified to standards in 40 CFR part 90 or 40 CFR part 1054 must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must follow the same test procedures that apply to large SI nonroad engines under 40 CFR part 1048, but must use the D-1 cycle of International Organization of Standardization 8178-4: 1996(E) (incorporated by reference, see 40 CFR 60.17) or the test cycle requirements specified in Table 3 to 40 CFR 1048.505, except that Table 3 of 40 CFR 1048.505 applies to high load engines only. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.

(c) Certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, is voluntary, but manufacturers who decide to certify are subject to all of the requirements indicated in this subpart with regard to the engines included in their certification. Manufacturers must clearly label their stationary SI engines as certified or non-certified engines.

(d) Manufacturers of natural gas fired stationary SI ICE who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the definition of pipeline-quality natural gas. The fuel used for certifying stationary SI natural gas engines must meet the definition of pipeline-quality natural gas as described in §60.4248. In addition, the manufacturer must provide information to the owner and operator of the certified stationary SI engine including the specifications of the pipeline-quality natural gas to which the engine is certified and what adjustments the owner or operator must make to the engine when installed in the field to ensure compliance with the emission standards.

(e) Manufacturers of stationary SI ICE that are lean burn engines fueled by LPG who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the specifications in 40 CFR 1065.720.

(f) Manufacturers may certify their engines for operation using gaseous fuels in addition to pipeline-quality natural gas; however, the manufacturer must specify the properties of that fuel and provide testing information showing that the engine will meet the emission standards specified in §60.4231(d) or (e), as applicable, when operating on that fuel. The manufacturer must also provide instructions for configuring the stationary engine to meet the emission standards on fuels that do not meet the pipeline-quality natural gas definition. The manufacturer must also provide information to the owner and operator of the certified stationary SI engine regarding the configuration that is most conducive to reduced emissions where the engine will be operated on gaseous fuels with different quality than the fuel that it was certified to.

(g) A stationary SI engine manufacturer may certify an engine family solely to the standards applicable to landfill/digester gas engines as specified in §60.4231(d) or (e), as applicable, but must certify their engines for operation using landfill/digester gas and must add a permanent label stating that the engine is for use only in landfill/digester gas applications. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

(h) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

(i) For engines being certified to the voluntary certification standards in Table 1 of this subpart, the VOC measurement shall be made by following the procedures in 40 CFR 1065.260 and 1065.265 in order to determine the total NMHC emissions by using a flame-ionization detector and non-methane cutter. As an alternative to the

nonmethane cutter, manufacturers may use a gas chromatograph as allowed under 40 CFR 1065.267 and may measure ethane, as well as methane, for excluding such levels from the total VOC measurement.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59176, Oct. 8, 2008; 76 FR 37974, June 28, 2011]

§60.4242 What other requirements must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

(a) Stationary SI internal combustion engine manufacturers must meet the provisions of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as applicable, as well as 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1048 or 1054, except that engines certified pursuant to the voluntary certification procedures in §60.4241 are subject only to the provisions indicated in §60.4247 and are permitted to provide instructions to owners and operators allowing for deviations from certified configurations, if such deviations are consistent with the provisions of paragraphs §60.4241(c) through (f). Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, as applicable. Labels on engines certified to 40 CFR part 1048 must refer to stationary engines, rather than or in addition to nonroad engines, as appropriate.

(b) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054 for that model year may certify any such family that contains both nonroad and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts. This provision also applies to equipment or component manufacturers certifying to standards under 40 CFR part 1060.

(c) Manufacturers of engine families certified to 40 CFR part 1048 may meet the labeling requirements referred to in paragraph (a) of this section for stationary SI ICE by either adding a separate label containing the information required in paragraph (a) of this section or by adding the words “and stationary” after the word “nonroad” to the label.

(d) For all engines manufactured on or after January 1, 2011, and for all engines with a maximum engine power greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, a stationary SI engine manufacturer that certifies an engine family solely to the standards applicable to emergency engines must add a permanent label stating that the engines in that family are for emergency use only. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).

(e) All stationary SI engines subject to mandatory certification that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230. Stationary SI engines subject to standards in 40 CFR part 90 may use the provisions in 40 CFR 90.909. Manufacturers of stationary engines with a maximum engine power greater than 25 HP that are not certified to standards and other requirements under 40 CFR part 1048 are subject to the labeling provisions of 40 CFR 1048.20 pertaining to excluded stationary engines.

(f) For manufacturers of gaseous-fueled stationary engines required to meet the warranty provisions in 40 CFR 90.1103 or 1054.120, we may establish an hour-based warranty period equal to at least the certified emissions life of the engines (in engine operating hours) if we determine that these engines are likely to operate for a number of hours greater than the applicable useful life within 24 months. We will not approve an alternate warranty under this paragraph (f) for nonroad engines. An alternate warranty period approved under this paragraph (f) will be the specified number of engine operating hours or two years, whichever comes first. The engine manufacturer shall request this alternate warranty period in its application for certification or in an earlier submission. We may approve an alternate warranty period for an engine family subject to the following conditions:

(1) The engines must be equipped with non-resettable hour meters.

(2) The engines must be designed to operate for a number of hours substantially greater than the applicable certified emissions life.

(3) The emission-related warranty for the engines may not be shorter than any published warranty offered by the manufacturer without charge for the engines. Similarly, the emission-related warranty for any component shall not be shorter than any published warranty offered by the manufacturer without charge for that component.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008]

Compliance Requirements for Owners and Operators

§60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

(2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.

(i) If you are an owner or operator of a stationary SI internal combustion engine less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required if you are an owner or operator.

(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance.

(iii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

(b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

(1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.

(2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.

(i) If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent

practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance.

(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

(c) If you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according paragraph (b)(2)(i) or (ii) of this section, except that if you comply according to paragraph (b)(2)(i) of this section, you demonstrate that your non-certified engine complies with the emission standards specified in §60.4233(f).

(d) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

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

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

(f) If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

(h) If you are an owner/operator of an stationary SI internal combustion engine with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in sections 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (h)(1) through (h)(4) of this section.

(1) Purchasing an engine certified according to 40 CFR part 1048. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(i) If you are an owner or operator of a modified or reconstructed stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according to one of the methods specified in paragraphs (i)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4233(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4244. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37974, June 28, 2011; 78 FR 6697, Jan. 30, 2013]

Testing Requirements for Owners and Operators

§60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

(d) To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 1)}$$

Where:

ER = Emission rate of NO_X in g/HP-hr.

C_d = Measured NO_X concentration in parts per million by volume (ppmv).

1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 2)}$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv.

1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 3)}$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \qquad \text{(Eq. 4)}$$

Where:

RF_i = Response factor of compound i when measured with EPA Method 25A.

C_{Mi} = Measured concentration of compound i in ppmv as carbon.

C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \qquad \text{(Eq. 5)}$$

Where:

C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \qquad \text{(Eq. 6)}$$

Where:

C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.

Notification, Reports, and Records for Owners and Operators

§60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

(b) For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the

standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

(c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

(1) Name and address of the owner or operator;

(2) The address of the affected source;

(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(4) Emission control equipment; and

(5) Fuel used.

(d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.

(e) If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4243(d)(2)(ii) and (iii) or that operates for the purposes specified in §60.4243(d)(3)(i), you must submit an annual report according to the requirements in paragraphs (e)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §60.4243(d)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4243(d)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in §60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*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 report must be submitted to the Administrator at the appropriate address listed in §60.4.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 78 FR 6697, Jan. 30, 2013; 81 FR 59809, Aug. 30, 2016]

General Provisions

§60.4246 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

MOBILE SOURCE PROVISIONS

§60.4247 What parts of the mobile source provisions apply to me if I am a manufacturer of stationary SI internal combustion engines or a manufacturer of equipment containing such engines?

(a) Manufacturers certifying to emission standards in 40 CFR part 90, including manufacturers certifying emergency engines below 130 HP, must meet the provisions of 40 CFR part 90. Manufacturers certifying to emission standards in 40 CFR part 1054 must meet the provisions of 40 CFR part 1054. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060 to the extent they apply to equipment manufacturers.

(b) Manufacturers required to certify to emission standards in 40 CFR part 1048 must meet the provisions of 40 CFR part 1048. Manufacturers certifying to emission standards in 40 CFR part 1048 pursuant to the voluntary certification program must meet the requirements in Table 4 to this subpart as well as the standards in 40 CFR 1048.101.

(c) For manufacturers of stationary SI internal combustion engines participating in the voluntary certification program and certifying engines to Table 1 to this subpart, Table 4 to this subpart shows which parts of the mobile source provisions in 40 CFR parts 1048, 1065, and 1068 apply to you. Compliance with the deterioration factor provisions under 40 CFR 1048.205(n) and 1048.240 will be required for engines built new on and after January 1, 2010. Prior to January 1, 2010, manufacturers of stationary internal combustion engines participating in the voluntary certification program have the option to develop their own deterioration factors based on an engineering analysis.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008]

Definitions

§60.4248 What definitions apply to this subpart?

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

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) are given in 40 CFR 90.105, 40 CFR 1054.107, and 40 CFR 1060.101, as appropriate. The values for certified emissions life for stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) certified to 40 CFR part 1048 are given in 40 CFR 1048.101(g). The certified emissions life for stationary SI ICE with a maximum engine power greater than 75 KW (100 HP) certified under the voluntary manufacturer certification program of this subpart is 5,000 hours or 7 years, whichever comes first. You may request in your application for certification that we approve a shorter certified emissions life for an engine family. We may approve a shorter certified emissions life, in hours of engine operation but not in years, if we determine that these engines will rarely operate longer than the shorter certified emissions life. If engines identical to those in the engine family have already been produced and are in use, your demonstration must include documentation from such in-use

engines. In other cases, your demonstration must include an engineering analysis of information equivalent to such in-use data, such as data from research engines or similar engine models that are already in production. Your demonstration must also include any overhaul interval that you recommend, any mechanical warranty that you offer for the engine or its components, and any relevant customer design specifications. Your demonstration may include any other relevant information. The certified emissions life value may not be shorter than any of the following:

(i) 1,000 hours of operation.

(ii) Your recommended overhaul interval.

(iii) Your mechanical warranty for the engine.

Certified stationary internal combustion engine means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as appropriate.

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

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

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and carbon dioxide (CO_2).

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in §60.4243(d) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4243(d), then it is not considered to be an emergency stationary ICE under this subpart.

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.

(2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4243(d).

(3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4243(d)(2)(ii) or (iii) and §60.4243(d)(3)(i).

Engine manufacturer means the manufacturer of the engine. See the definition of “manufacturer” in this section.

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

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

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

Installed means the engine is placed and secured at the location where it is intended to be operated.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

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

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

Manufacturer has the meaning given in section 216(1) of the Clean Air Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1048.801.

Model year means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

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

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Pipeline-quality natural gas means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a

pipeline. Pipeline-quality natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 British thermal units per standard cubic foot.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to June 12, 2006, with passive emission control technology for NO_X (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

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

Stationary internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Stationary internal combustion engine test cell/stand means an engine test cell/stand, as defined in 40 CFR part 63, subpart PPPPP, that tests stationary ICE.

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

Subpart means 40 CFR part 60, subpart JJJJ.

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

Volatile organic compounds means volatile organic compounds as defined in 40 CFR 51.100(s).

Voluntary certification program means an optional engine certification program that manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to participate in to certify their engines to the emission standards in §60.4231(d) or (e), as applicable.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 76 FR 37974, June 28, 2011; 78 FR 6698, Jan. 30, 2013]

Table 1 to Subpart JJJJ of Part 60—NOX, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards[a]					
			g/HP-hr			ppmvd at 15% O_2		
			NO_X	CO	VOC[d]	NO_X	CO	VOC[d]
Non-Emergency SI Natural Gas[b] and Non-Emergency SI Lean Burn LPG[b]	100≤HP<500	7/1/2008	2.0	4.0	1.0	160	540	86
		1/1/2011	1.0	2.0	0.7	82	270	60
Non-Emergency SI Lean Burn Natural Gas and LPG	500≤HP<1,350	1/1/2008	2.0	4.0	1.0	160	540	86
		7/1/2010	1.0	2.0	0.7	82	270	60
Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500≤HP<1,350)	HP≥500	7/1/2007	2.0	4.0	1.0	160	540	86
	HP≥500	7/1/2010	1.0	2.0	0.7	82	270	60
Landfill/Digester Gas (except lean burn 500≤HP<1,350)	HP<500	7/1/2008	3.0	5.0	1.0	220	610	80
		1/1/2011	2.0	5.0	1.0	150	610	80
	HP≥500	7/1/2007	3.0	5.0	1.0	220	610	80
		7/1/2010	2.0	5.0	1.0	150	610	80
Landfill/Digester Gas Lean Burn	500≤HP<1,350	1/1/2008	3.0	5.0	1.0	220	610	80
		7/1/2010	2.0	5.0	1.0	150	610	80
Emergency	25<HP<130	1/1/2009	[c]10	387	N/A	N/A	N/A	N/A
	HP≥130		2.0	4.0	1.0	160	540	86

[a]Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O_2.

[b]Owners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR part 63, subpart ZZZZ, Table 2a do not have to comply with the CO emission standards of Table 1 of this subpart.

[c]The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_X + HC.

[d]For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

[76 FR 37975, June 28, 2011]

Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests

[As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244	a. limit the concentration of NO_X in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for NO_X, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B[b] of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)[ad]	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for NO_X concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A[e], or ASTM Method D6348-03[de]	(c) Measurements to determine moisture must be made at the same time as the measurement for NO_X concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		v. Measure NO_X at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device	(5) Method 7E of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (Reapproved 2005)[ad], Method 320 of 40 CFR part 63, appendix A[e], or ASTM Method D6348-03[de]	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	b. limit the concentration of CO in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for CO, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B[b] of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)[ad]	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for CO concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A[e], or ASTM Method D6348-03[de]	(c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		v. Measure CO at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device	(5) Method 10 of 40 CFR part 60, appendix A4, ASTM Method D6522-00 (Reapproved 2005)[ade], Method 320 of 40 CFR part 63, appendix A[e], or ASTM Method D6348-03[de]	(d) Results of this test consist of the average of the three 1-hour or longer runs.
	c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate	(a) Alternatively, for VOC, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
		ii. Determine the O_2 concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B[b] of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005)[ad]	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for VOC concentration.
		iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust;	(3) Method 2 or 2C of 40 CFR 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7	
		iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A[e], or ASTM Method D6348-03[de]	(c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		v. Measure VOC at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device	(5) Methods 25A and 18 of 40 CFR part 60, appendices A-6 and A-7, Method 25A with the use of a hydrocarbon cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A-6[ce], Method 320 of 40 CFR part 63, appendix A[e], or ASTM Method D6348-03[de]	(d) Results of this test consist of the average of the three 1-hour or longer runs.

[a]Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.

[b]You may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O_2 content of the exhaust gas as an alternative to EPA Method 3B. AMSE PTC 19.10-1981 incorporated by reference, see 40 CFR 60.17

[c]You may use EPA Method 18 of 40 CFR part 60, appendix A-6, provided that you conduct an adequate pre-survey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (*http://www.epa.gov/ttn/emc/prelim/otm11.pdf*).

[d]Incorporated by reference; see 40 CFR 60.17.

[e]You must meet the requirements in §60.4245(d).

[81 FR 59809, Aug. 30, 2016]

Table 3 to Subpart JJJJ of Part 60—Applicability of General Provisions to Subpart JJJJ

[As stated in §60.4246, you must comply with the following applicable General Provisions]

General provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4248.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4245.
§60.8	Performance tests	Yes	Except that §60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	Yes	Requirements are specified in subpart JJJJ.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	No	
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

Table 4 to Subpart JJJJ of Part 60—Applicability of Mobile Source Provisions for Manufacturers Participating in the Voluntary Certification Program and Certifying Stationary SI ICE to Emission Standards in Table 1 of Subpart JJJJ

[As stated in §60.4247, you must comply with the following applicable mobile source provisions if you are a manufacturer participating in the voluntary certification program and certifying stationary SI ICE to emission standards in Table 1 of subpart JJJJ]

Mobile source provisions citation	Subject of citation	Applies to subpart	Explanation
1048 subpart A	Overview and Applicability	Yes	
1048 subpart B	Emission Standards and Related Requirements	Yes	Except for the specific sections below.
1048.101	Exhaust Emission Standards	No	
1048.105	Evaporative Emission Standards	No	
1048.110	Diagnosing Malfunctions	No	
1048.140	Certifying Blue Sky Series Engines	No	
1048.145	Interim Provisions	No	
1048 subpart C	Certifying Engine Families	Yes	Except for the specific sections below.
1048.205(b)	AECD reporting	Yes	
1048.205(c)	OBD Requirements	No	
1048.205(n)	Deterioration Factors	Yes	Except as indicated in 60.4247(c).
1048.205(p)(1)	Deterioration Factor Discussion	Yes	

Mobile source provisions citation	Subject of citation	Applies to subpart	Explanation
1048.205(p)(2)	Liquid Fuels as they require	No	
1048.240(b)(c)(d)	Deterioration Factors	Yes	
1048 subpart D	Testing Production-Line Engines	Yes	
1048 subpart E	Testing In-Use Engines	No	
1048 subpart F	Test Procedures	Yes	
1065.5(a)(4)	Raw sampling (refers reader back to the specific emissions regulation for guidance)	Yes	
1048 subpart G	Compliance Provisions	Yes	
1048 subpart H	Reserved		
1048 subpart I	Definitions and Other Reference Information	Yes	
1048 appendix I and II	Yes		
1065 (all subparts)	Engine Testing Procedures	Yes	Except for the specific section below.
1065.715	Test Fuel Specifications for Natural Gas	No	
1068 (all subparts)	General Compliance Provisions for Nonroad Programs	Yes	Except for the specific sections below.
1068.245	Hardship Provisions for Unusual Circumstances	No	
1068.250	Hardship Provisions for Small-Volume Manufacturers	No	
1068.255	Hardship Provisions for Equipment Manufacturers and Secondary Engine Manufacturers	No	

Attachment B

Part 70 Operating Permit No: T091-39531-00020

[Downloaded from the eCFR on March 24, 2014]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

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

Subpart ZZZZZ—National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources

Source: 73 FR 252, Jan. 2, 2008, unless otherwise noted.

Applicability and Compliance Dates

§63.10880 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate an iron and steel foundry that is an area source of hazardous air pollutant (HAP) emissions.

(b) This subpart applies to each new or existing affected source. The affected source is each iron and steel foundry.

(1) An affected source is existing if you commenced construction or reconstruction of the affected source before September 17, 2007.

(2) An affected source is new if you commenced construction or reconstruction of the affected source on or after September 17, 2007. If an affected source is not new pursuant to the preceding sentence, it is not new as a result of a change in its compliance obligations pursuant to §63.10881(d).

(c) On and after January 2, 2008, if your iron and steel foundry becomes a major source as defined in §63.2, you must meet the requirements of 40 CFR part 63, subpart EEEEE.

(d) This subpart does not apply to research and development facilities, as defined in section 112(c)(7) of the Clean Air Act.

(e) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

(f) If you own or operate an existing affected source, you must determine the initial applicability of the requirements of this subpart to a small foundry or a large foundry based on your facility's metal melt production for calendar year 2008. If the metal melt production for calendar year 2008 is 20,000 tons or less, your area source is a small foundry. If your metal melt production for calendar year 2008 is greater than 20,000 tons, your area source is a large foundry. You must submit a written notification to the Administrator that identifies your area source as a small foundry or a large foundry no later than January 2, 2009.

(g) If you own or operate a new affected source, you must determine the initial applicability of the requirements of this subpart to a small foundry or a large foundry based on your facility's annual metal melting capacity at startup. If the annual metal melting capacity is 10,000 tons or less, your area source is a small foundry. If the annual metal melting

capacity is greater than 10,000 tons, your area source is a large foundry. You must submit a written notification to the Administrator that identifies your area source as a small foundry or a large foundry no later than 120 days after startup.

§63.10881 What are my compliance dates?

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

(1) Not later than January 2, 2009 for the pollution prevention management practices for metallic scrap in §63.10885(a) and binder formulations in §63.10886.

(2) Not later than January 4, 2010 for the pollution prevention management practices for mercury in §63.10885(b).

(3) Except as provided in paragraph (d) of this section, not later than 2 years after the date of your large foundry's notification of the initial determination required in §63.10880(f) for the standards and management practices in §63.10895.

(b) If you have a new affected source for which the initial startup date is on or before January 2, 2008, you must achieve compliance with the provisions of this subpart not later than January 2, 2008.

(c) If you own or operate a new affected source for which the initial startup date is after January 2, 2008, you must achieve compliance with the provisions of this subpart upon startup of your affected source.

(d) Following the initial determination for an existing affected source required in §63.10880(f),

(1) Beginning January 1, 2010, if the annual metal melt production of your small foundry exceeds 20,000 tons during the preceding calendar year, you must submit a notification of foundry reclassification to the Administrator within 30 days and comply with the requirements in paragraphs (d)(1)(i) or (ii) of this section, as applicable.

(i) If your small foundry has never been classified as a large foundry, you must comply with the requirements for a large foundry no later than 2 years after the date of your foundry's notification that the annual metal melt production exceeded 20,000 tons.

(ii) If your small foundry had previously been classified as a large foundry, you must comply with the requirements for a large foundry no later than the date of your foundry's most recent notification that the annual metal melt production exceeded 20,000 tons.

(2) If your facility is initially classified as a large foundry (or your small foundry subsequently becomes a large foundry), you must comply with the requirements for a large foundry for at least 3 years before reclassifying your facility as a small foundry, even if your annual metal melt production falls below 20,000 tons. After 3 years, you may reclassify your facility as a small foundry provided your annual metal melt production for the preceding calendar year was 20,000 tons or less. If you reclassify your large foundry as a small foundry, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a small foundry no later than the date you notify the Administrator of the reclassification. If the annual metal melt production exceeds 20,000 tons during a subsequent year, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a large foundry no later than the date you notify the Administrator of the reclassification.

(e) Following the initial determination for a new affected source required in §63.10880(g),

(1) If you increase the annual metal melt capacity of your small foundry to exceed 10,000 tons, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a large foundry no later than the startup date for the new equipment, if applicable, or the date of issuance for your revised State or Federal operating permit.

(2) If your facility is initially classified as a large foundry (or your small foundry subsequently becomes a large foundry), you must comply with the requirements for a large foundry for at least 3 years before reclassifying your facility as a small foundry. After 3 years, you may reclassify your facility as a small foundry provided your most recent annual metal melt capacity is 10,000 tons or less. If you reclassify your large foundry as a small foundry, you must notify the Administrator within 30 days and comply with the requirements for a small foundry no later than the date your melting equipment was removed or taken out of service, if applicable, or the date of issuance for your revised State or Federal operating permit.

Pollution Prevention Management Practices for New and Existing Affected Sources

§63.10885 What are my management practices for metallic scrap and mercury switches?

(a) *Metallic scrap management program.* For each segregated metallic scrap storage area, bin or pile, you must comply with the materials acquisition requirements in paragraph (a)(1) or (2) of this section. You must keep a copy of the material specifications onsite and readily available to all personnel with material acquisition duties, and provide a copy to each of your scrap providers. You may have certain scrap subject to paragraph (a)(1) of this section and other scrap subject to paragraph (a)(2) of this section at your facility provided the metallic scrap remains segregated until charge make-up.

(1) *Restricted metallic scrap.* You must prepare and operate at all times according to written material specifications for the purchase and use of only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, chlorinated plastics, or free liquids. For the purpose of this subpart, “free liquids” is defined as material that fails the paint filter test by EPA Method 9095B, “Paint Filter Liquids Test” (revision 2), November 2004 (incorporated by reference—see §63.14). The requirements for no free liquids do not apply if the owner or operator can demonstrate that the free liquid is water that resulted from scrap exposure to rain.

(2) *General iron and steel scrap.* You must prepare and operate at all times according to written material specifications for the purchase and use of only iron and steel scrap that has been depleted (to the extent practicable) of organics and HAP metals in the charge materials used by the iron and steel foundry. The materials specifications must include at minimum the information specified in paragraph (a)(2)(i) or (ii) of this section.

(i) Except as provided in paragraph (a)(2)(ii) of this section, specifications for metallic scrap materials charged to a scrap preheater or metal melting furnace to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.

(ii) For scrap charged to a cupola metal melting furnace that is equipped with an afterburner, specifications for metallic scrap materials to be depleted (to the extent practicable) of the presence of chlorinated plastics, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.

(b) *Mercury requirements.* For scrap containing motor vehicle scrap, you must procure the scrap pursuant to one of the compliance options in paragraphs (b)(1), (2), or (3) of this section for each scrap provider, contract, or shipment. For scrap that does not contain motor vehicle scrap, you must procure the scrap pursuant to the requirements in paragraph (b)(4) of this section for each scrap provider, contract, or shipment. You may have one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision.

(1) *Site-specific plan for mercury switches.* You must comply with the requirements in paragraphs (b)(1)(i) through (v) of this section.

(i) You must include a requirement in your scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap.

(ii) You must prepare and operate according to a plan demonstrating how your facility will implement the scrap specification in paragraph (b)(1)(i) of this section for removal of mercury switches. You must submit the plan to the Administrator for approval. You must operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by

the Administrator or delegated authority within 60 days following disapproval of a plan. You may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the Administrator or delegated authority. The Administrator or delegated authority may change the approval status of the plan upon 90-days written notice based upon the semiannual report or other information. The plan must include:

(A) A means of communicating to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from the scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268). The plan must include documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Administrator or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols;

(B) Provisions for obtaining assurance from scrap providers motor vehicle scrap provided to the facility meet the scrap specification;

(C) Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and

(D) Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components) if needed, based on the results of procedures implemented in paragraph (b)(1)(ii)(C) of this section).

(iii) You must require each motor vehicle scrap provider to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to the facility during the previous year and the basis for the estimate. The Administrator may request documentation or additional information at any time.

(iv) You must establish a goal for each scrap supplier to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under paragraph (b)(1) of this section may require only the removal of convenience light switch mechanisms, the Administrator will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal.

(v) For each scrap provider, you must submit semiannual progress reports to the Administrator that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches removed, and certification that the removed mercury switches were recycled at RCRA-permitted facilities or otherwise properly managed pursuant to RCRA subtitle C regulations referenced in paragraph (b)(1)(ii)(A) of this section. This information can be submitted in aggregate form and does not have to be submitted for each shipment. The Administrator may change the approval status of a site-specific plan following 90-days notice based on the progress reports or other information.

(2) *Option for approved mercury programs.* You must certify in your notification of compliance status that you participate in and purchase motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of this section. If you purchase motor vehicle scrap from a broker, you must certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (b)(2)(i) through (iii) of this section. The National Mercury Switch Recovery Program and the State of Maine Mercury Switch Removal Program are EPA-approved programs under paragraph (b)(2) of this section unless and until the Administrator disapproves the program (in part or in whole) under paragraph (b)(2)(iii) of this section.

(i) The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches;

(ii) The program has a goal to remove at least 80 percent of mercury switches from motor vehicle scrap the scrap provider processes. Although a program approved under paragraph (b)(2) of this section may require only the

removal of convenience light switch mechanisms, the Administrator will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal; and

(iii) The program sponsor agrees to submit progress reports to the Administrator no less frequently than once every year that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA (40 CFR parts 261 through 265 and 268). The progress reports must be based on a database that includes data for each program participant; however, data may be aggregated at the State level for progress reports that will be publicly available. The Administrator may change the approval status of a program or portion of a program (e.g., at the State level) following 90-days notice based on the progress reports or on other information.

(iv) You must develop and maintain onsite a plan demonstrating the manner through which your facility is participating in the EPA-approved program.

(A) The plan must include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility.

(B) You must provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal or mercury switches from end-of-life vehicles. Upon the request of the Administrator or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols.

(C) You must conduct periodic inspections or other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.

(3) *Option for specialty metal scrap.* You must certify in your notification of compliance status and maintain records of documentation that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches.

(4) *Scrap that does not contain motor vehicle scrap.* For scrap not subject to the requirements in paragraphs (b)(1) through (3) of this section, you must certify in your notification of compliance status and maintain records of documentation that this scrap does not contain motor vehicle scrap.

§63.10886 What are my management practices for binder formulations?

For each furfuryl alcohol warm box mold or core making line at a new or existing iron and steel foundry, you must use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system.

Requirements for New and Existing Affected Sources Classified as Small Foundries

§63.10890 What are my management practices and compliance requirements?

(a) You must comply with the pollution prevention management practices for metallic scrap and mercury switches in §63.10885 and binder formulations in §63.10886.

(b) You must submit an initial notification of applicability according to §63.9(b)(2).

(c) You must submit a notification of compliance status according to §63.9(h)(1)(i). You must send the notification of compliance status before the close of business on the 30th day after the applicable compliance date specified in §63.10881. The notification must include the following compliance certifications, as applicable:

(1) “This facility has prepared, and will operate by, written material specifications for metallic scrap according to §63.10885(a)(1)” and/or “This facility has prepared, and will operate by, written material specifications for general iron and steel scrap according to §63.10885(a)(2).”

(2) “This facility has prepared, and will operate by, written material specifications for the removal of mercury switches and a site-specific plan implementing the material specifications according to §63.10885(b)(1) and/or “This facility participates in and purchases motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator according to §63.10885(b)(2) and has prepared a plan for participation in the EPA-approved program according to §63.10885(b)(2)(iv)” and/or “The only materials from motor vehicles in the scrap charged to a metal melting furnace at this facility are materials recovered for their specialty alloy content in accordance with §63.10885(b)(3) which are not reasonably expected to contain mercury switches” and/or “This facility complies with the requirements for scrap that does not contain motor vehicle scrap in accordance with §63.10885(b)(4).”

(3) “This facility complies with the no methanol requirement for the catalyst portion of each binder chemical formulation for a furfuryl alcohol warm box mold or core making line according to §63.10886.”

(d) As required by §63.10(b)(1), you must maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(e) You must maintain records of the information specified in paragraphs (e)(1) through (7) of this section according to the requirements in §63.10(b)(1).

(1) Records supporting your initial notification of applicability and your notification of compliance status according to §63.10(b)(2)(xiv).

(2) Records of your written materials specifications according to §63.10885(a) and records that demonstrate compliance with the requirements for restricted metallic scrap in §63.10885(a)(1) and/or for the use of general scrap in §63.10885(a)(2) and for mercury in §63.10885(b)(1) through (3), as applicable. You must keep records documenting compliance with §63.10885(b)(4) for scrap that does not contain motor vehicle scrap.

(3) If you are subject to the requirements for a site-specific plan for mercury switch removal under §63.10885(b)(1), you must:

(i) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and

(ii) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that you have conducted periodic inspections or taken other means of corroboration as required under §63.10885(b)(1)(ii)(C). You must identify which option in paragraph §63.10885(b) applies to each scrap provider, contract, or shipment. You may include this information in the semiannual compliance reports required under paragraph (f) of this section.

(4) If you are subject to the option for approved mercury programs under §63.10885(b)(2), you must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If you purchase motor vehicle scrap from a broker, you must maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in an approved mercury switch removal program.

(5) Records to document use of binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by §63.10886.

These records must be the Material Safety Data Sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.

(6) Records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, Material Safety Data Sheets, or other documentation that provides information on the binder or coating materials used.

(7) Records of metal melt production for each calendar year.

(f) You must submit semiannual compliance reports to the Administrator according to the requirements in §63.10(e). The report must clearly identify any deviation from the pollution prevention management practices in §63.10885 or §63.10886 and the corrective action taken.

(g) You must submit a written notification to the Administrator of the initial classification of your facility as a small foundry as required in §63.10880(f) and (g), as applicable, and for any subsequent reclassification as required in §63.10881(d)(1) or (e), as applicable.

(h) Following the initial determination for an existing affected source as a small foundry, if the annual metal melt production exceeds 20,000 tons during the preceding year, you must comply with the requirements for large foundries by the applicable dates in §63.10881(d)(1)(i) or (d)(1)(ii). Following the initial determination for a new affected source as a small foundry, if you increase the annual metal melt capacity to exceed 10,000 tons, you must comply with the requirements for a large foundry by the applicable dates in §63.10881(e)(1).

(i) You must comply with the following requirements of the General Provisions (40 CFR part 63, subpart A): §§63.1 through 63.5; §63.6(a), (b), (c), and (e)(1); §63.9; §63.10(a), (b)(1), (b)(2)(xiv), (b)(3), (d)(1), (d)(4), and (f); and §§63.13 through 63.16. Requirements of the General Provisions not cited in the preceding sentence do not apply to the owner or operator of a new or existing affected source that is classified as a small foundry.

Requirements for New and Existing Affected Sources Classified as Large Iron and Steel Foundries

§63.10895 What are my standards and management practices?

(a) If you own or operate an affected source that is a large foundry as defined in §63.10906, you must comply with the pollution prevention management practices in §§63.10885 and 63.10886, the requirements in paragraphs (b) through (e) of this section, and the requirements in §§63.10896 through 63.10900.

(b) You must operate a capture and collection system for each metal melting furnace at a new or existing iron and steel foundry unless that furnace is specifically uncontrolled as part of an emissions averaging group. Each capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists.

(c) You must not discharge to the atmosphere emissions from any metal melting furnace or group of all metal melting furnaces that exceed the applicable limit in paragraph (c)(1) or (2) of this section. When an alternative emissions limit is provided for a given emissions source, you are not restricted in the selection of which applicable alternative emissions limit is used to demonstrate compliance.

(1) For an existing iron and steel foundry, 0.8 pounds of particulate matter (PM) per ton of metal charged or 0.06 pounds of total metal HAP per ton of metal charged.

(2) For a new iron and steel foundry, 0.1 pounds of PM per ton of metal charged or 0.008 pounds of total metal HAP per ton of metal charged.

(d) If you own or operate a new affected source, you must comply with each control device parameter operating limit in paragraphs (d)(1) and (2) of this section that applies to you.

(1) For each wet scrubber applied to emissions from a metal melting furnace, you must maintain the 3-hour average pressure drop and scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance test.

(2) For each electrostatic precipitator applied to emissions from a metal melting furnace, you must maintain the voltage and secondary current (or total power input) to the control device at or above the level established during the initial or subsequent performance test.

(e) If you own or operate a new or existing iron and steel foundry, you must not discharge to the atmosphere fugitive emissions from foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 30 percent.

§63.10896 What are my operation and maintenance requirements?

(a) You must prepare and operate at all times according to a written operation and maintenance (O&M) plan for each control device for an emissions source subject to a PM, metal HAP, or opacity emissions limit in §63.10895. You must maintain a copy of the O&M plan at the facility and make it available for review upon request. At a minimum, each plan must contain the following information:

(1) General facility and contact information;

(2) Positions responsible for inspecting, maintaining, and repairing emissions control devices which are used to comply with this subpart;

(3) Description of items, equipment, and conditions that will be inspected, including an inspection schedule for the items, equipment, and conditions. For baghouses that are equipped with bag leak detection systems, the O&M plan must include the site-specific monitoring plan required in §63.10897(d)(2).

(4) Identity and estimated quantity of the replacement parts that will be maintained in inventory; and

(5) For a new affected source, procedures for operating and maintaining a CPMS in accordance with manufacturer's specifications.

(b) You may use any other O&M, preventative maintenance, or similar plan which addresses the requirements in paragraph (a)(1) through (5) of this section to demonstrate compliance with the requirements for an O&M plan.

§63.10897 What are my monitoring requirements?

(a) You must conduct an initial inspection of each PM control device for a metal melting furnace at an existing affected source. You must conduct each initial inspection no later than 60 days after your applicable compliance date for each installed control device which has been operated within 60 days of the compliance date. For an installed control device which has not operated within 60 days of the compliance date, you must conduct an initial inspection prior to startup of the control device. Following the initial inspections, you must perform periodic inspections and maintenance of each PM control device for a metal melting furnace at an existing affected source. You must perform the initial and periodic inspections according to the requirements in paragraphs (a)(1) through (4) of this section. You must record the results of each initial and periodic inspection and any maintenance action in the logbook required in §63.10899(b)(13).

(1) For the initial inspection of each baghouse, you must visually inspect the system ductwork and baghouse units for leaks. You must also inspect the inside of each baghouse for structural integrity and fabric filter condition. Following the initial inspections, you must inspect and maintain each baghouse according to the requirements in paragraphs (a)(1)(i) and (ii) of this section.

(i) You must conduct monthly visual inspections of the system ductwork for leaks.

(ii) You must conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 6 months.

(2) For the initial inspection of each dry electrostatic precipitator, you must verify the proper functioning of the electronic controls for corona power and rapper operation, that the corona wires are energized, and that adequate air pressure is present on the rapper manifold. You must also visually inspect the system ductwork and electrostatic housing unit and hopper for leaks and inspect the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, hopper, and air diffuser plates. Following the initial inspection, you must inspect and maintain each dry electrostatic precipitator according to the requirements in paragraphs (a)(2)(i) through (iii) of this section.

(i) You must conduct a daily inspection to verify the proper functioning of the electronic controls for corona power and rapper operation, that the corona wires are energized, and that adequate air pressure is present on the rapper manifold.

(ii) You must conduct monthly visual inspections of the system ductwork, housing unit, and hopper for leaks.

(iii) You must conduct inspections of the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, plate rappers, hopper, and air diffuser plates every 24 months.

(3) For the initial inspection of each wet electrostatic precipitator, you must verify the proper functioning of the electronic controls for corona power, that the corona wires are energized, and that water flow is present. You must also visually inspect the system ductwork and electrostatic precipitator housing unit and hopper for leaks and inspect the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, plate wash spray heads, hopper, and air diffuser plates. Following the initial inspection, you must inspect and maintain each wet electrostatic precipitator according to the requirements in paragraphs (a)(3)(i) through (iii) of this section.

(i) You must conduct a daily inspection to verify the proper functioning of the electronic controls for corona power, that the corona wires are energized, and that water flow is present.

(ii) You must conduct monthly visual inspections of the system ductwork, electrostatic precipitator housing unit, and hopper for leaks.

(iii) You must conduct inspections of the interior of the electrostatic precipitator to determine the condition and integrity of corona wires, collection plates, plate wash spray heads, hopper, and air diffuser plates every 24 months.

(4) For the initial inspection of each wet scrubber, you must verify the presence of water flow to the scrubber. You must also visually inspect the system ductwork and scrubber unit for leaks and inspect the interior of the scrubber for structural integrity and the condition of the demister and spray nozzle. Following the initial inspection, you must inspect and maintain each wet scrubber according to the requirements in paragraphs (a)(4)(i) through (iii) of this section.

(i) You must conduct a daily inspection to verify the presence of water flow to the scrubber.

(ii) You must conduct monthly visual inspections of the system ductwork and scrubber unit for leaks.

(iii) You must conduct inspections of the interior of the scrubber to determine the structural integrity and condition of the demister and spray nozzle every 12 months.

(b) For each wet scrubber applied to emissions from a metal melting furnace at a new affected source, you must use a continuous parameter monitoring system (CPMS) to measure and record the 3-hour average pressure drop and scrubber water flow rate.

(c) For each electrostatic precipitator applied to emissions from a metal melting furnace at a new affected source, you must measure and record the hourly average voltage and secondary current (or total power input) using a CPMS.

(d) If you own or operate an existing affected source, you may install, operate, and maintain a bag leak detection system for each negative pressure baghouse or positive pressure baghouse as an alternative to the baghouse inspection requirements in paragraph (a)(1) of this section. If you own or operate a new affected source, you must

install, operate, and maintain a bag leak detection system for each negative pressure baghouse or positive pressure baghouse. You must install, operate, and maintain each bag leak detection system according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) Each bag leak detection system must meet the requirements in paragraphs (d)(1)(i) through (vii) of this section.

(i) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using a strip chart recorder, data logger, or other means.

(iii) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points. If the system is equipped with an alarm delay time feature, you also must adjust the alarm delay time.

(v) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time. Except, once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonable effects including temperature and humidity according to the procedures in the monitoring plan required by paragraph (d)(2) of this section.

(vi) For negative pressure baghouses, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(vii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) You must prepare a site-specific monitoring plan for each bag leak detection system to be incorporated in your O&M plan. You must operate and maintain each bag leak detection system according to the plan at all times. Each plan must address all of the items identified in paragraphs (d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system.

(ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established.

(iii) Operation of the bag leak detection system including quality assurance procedures.

(iv) Maintenance of the bag leak detection system including a routine maintenance schedule and spare parts inventory list.

(v) How the bag leak detection system output will be recorded and stored.

(vi) Procedures for determining what corrective actions are necessary in the event of a bag leak detection alarm as required in paragraph (d)(3) of this section.

(3) In the event that a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete corrective action as soon as practicable, but no later than 10 calendar days from the date of the alarm. You must record the date and time of each valid alarm, the time you initiated corrective action,

the correction action taken, and the date on which corrective action was completed. Corrective actions may include, but are not limited to:

(i) Inspecting the bag house for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective baghouse department.

(v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

(vi) Shutting down the process producing the particulate emissions.

(e) You must make monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). You must repair any defect or deficiency in the capture system as soon as practicable, but no later than 90 days. You must record the date and results of each inspection and the date of repair of any defect or deficiency.

(f) You must install, operate, and maintain each CPMS or other measurement device according to your O&M plan. You must record all information needed to document conformance with these requirements.

(g) In the event of an exceedance of an established emissions limitation (including an operating limit), you must restore operation of the emissions source (including the control device and associated capture system) to its normal or usual manner or operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. 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 exceedance. You must record the date and time correction action was initiated, the correction action taken, and the date corrective action was completed.

(h) If you choose to comply with an emissions limit in §63.10895(c) using emissions averaging, you must calculate and record for each calendar month the pounds of PM or total metal HAP per ton of metal melted from the group of all metal melting furnaces at your foundry. You must calculate and record the weighted average pounds per ton emissions rate for the group of all metal melting furnaces at the foundry determined from the performance test procedures in §63.10898(d) and (e).

§63.10898 What are my performance test requirements?

(a) You must conduct a performance test to demonstrate initial compliance with the applicable emissions limits for each metal melting furnace or group of all metal melting furnaces that is subject to an emissions limit in §63.10895(c) and for each building or structure housing foundry operations that is subject to the opacity limit for fugitive emissions in §63.10895(e). You must conduct the test within 180 days of your compliance date and report the results in your notification of compliance status.

(1) If you own or operate an existing iron and steel foundry, you may choose to submit the results of a prior performance test for PM or total metal HAP that demonstrates compliance with the applicable emissions limit for a metal melting furnace or group of all metal melting furnaces provided the test was conducted within the last 5 years using the methods and procedures specified in this subpart and either no process changes have been made since the test, or you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance with the applicable emissions limit despite such process changes.

(2) If you own or operate an existing iron and steel foundry and you choose to submit the results of a prior performance test according to paragraph (a)(1) of this section, you must submit a written notification to the

Administrator of your intent to use the previous test data no later than 60 days after your compliance date. The notification must contain a full copy of the performance test and contain information to demonstrate, if applicable, that either no process changes have been made since the test, or that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite such process changes.

(3) If you have an electric induction furnace equipped with an emissions control device at an existing foundry, you may use the test results from another electric induction furnace to demonstrate compliance with the applicable PM or total metal HAP emissions limit in §63.10895(c) provided the furnaces are similar with respect to the type of emission control device that is used, the composition of the scrap charged, furnace size, and furnace melting temperature.

(4) If you have an uncontrolled electric induction furnace at an existing foundry, you may use the test results from another electric induction furnace to demonstrate compliance with the applicable PM or total metal HAP emissions limit in §63.10895(c) provided the test results are prior to any control device and the electric induction furnaces are similar with respect to the composition of the scrap charged, furnace size, and furnace melting temperature.

(5) For electric induction furnaces that do not have emission capture systems, you may install a temporary enclosure for the purpose of representative sampling of emissions. A permanent enclosure and capture system is not required for the purpose of the performance test.

(b) You must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emissions limits in §63.10895(c) for a metal melting furnace or group of all metal melting furnaces no less frequently than every 5 years and each time you elect to change an operating limit or make a process change likely to increase HAP emissions.

(c) You must conduct each performance test according to the requirements in §63.7(e)(1), Table 1 to this subpart, and paragraphs (d) through (g) of this section.

(d) To determine compliance with the applicable PM or total metal HAP emissions limit in §63.10895(c) for a metal melting furnace in a lb/ton of metal charged format, compute the process-weighted mass emissions (Ep) for each test run using Equation 1 of this section:

$$E_p = \frac{C \times Q \times T}{P \times K} \qquad (Eq.\ 1)$$

Where:

E_p = Process-weighted mass emissions rate of PM or total metal HAP, pounds of PM or total metal HAP per ton (lb/ton) of metal charged;

C = Concentration of PM or total metal HAP measured during performance test run, grains per dry standard cubic foot (gr/dscf);

Q = Volumetric flow rate of exhaust gas, dry standard cubic feet per hour (dscf/hr);

T = Total time during a test run that a sample is withdrawn from the stack during melt production cycle, hr;

P = Total amount of metal charged during the test run, tons; and

K = Conversion factor, 7,000 grains per pound.

(e) To determine compliance with the applicable emissions limit in §63.10895(c) for a group of all metal melting furnaces using emissions averaging,

(1) Determine and record the monthly average charge rate for each metal melting furnace at your iron and steel foundry for the previous calendar month; and

(2) Compute the mass-weighted PM or total metal HAP using Equation 2 of this section.

$$E_c = \frac{\sum_{i=1}^{n}(E_{pi} \times T_{ti})}{\sum_{i=1}^{n} T_{ti}} \qquad (Eq. 2)$$

Where:

E_C = The mass-weighted PM or total metal HAP emissions for the group of all metal melting furnaces at the foundry, pounds of PM or total metal HAP per ton of metal charged;

E_{pi} = Process-weighted mass emissions of PM or total metal HAP for individual emission unit i as determined from the performance test and calculated using Equation 1 of this section, pounds of PM or total metal HAP per ton of metal charged;

T_{ti} = Total tons of metal charged for individual emission unit i for the calendar month prior to the performance test, tons; and

n = The total number of metal melting furnaces at the iron and steel foundry.

(3) For an uncontrolled electric induction furnace that is not equipped with a capture system and has not been previously tested for PM or total metal HAP, you may assume an emissions factor of 2 pounds per ton of PM or 0.13 pounds of total metal HAP per ton of metal melted in Equation 2 of this section instead of a measured test value. If the uncontrolled electric induction furnace is equipped with a capture system, you must use a measured test value.

(f) To determine compliance with the applicable PM or total metal HAP emissions limit for a metal melting furnace in §63.10895(c) when emissions from one or more regulated furnaces are combined with other non-regulated emissions sources, you may demonstrate compliance using the procedures in paragraphs (f)(1) through (3) of this section.

(1) Determine the PM or total metal HAP process-weighted mass emissions for each of the regulated streams prior to the combination with other exhaust streams or control device.

(2) Measure the flow rate and PM or total metal HAP concentration of the combined exhaust stream both before and after the control device and calculate the mass removal efficiency of the control device using Equation 3 of this section.

$$\%\ \text{reduction} = \frac{E_i - E_o}{E_i} \times 100\% \qquad (Eq. 3)$$

Where:

E_i = Mass emissions rate of PM or total metal HAP at the control device inlet, lb/hr;

E_o = Mass emissions rate of PM or total metal HAP at the control device outlet, lb/hr.

(3) Meet the applicable emissions limit based on the calculated PM or total metal HAP process-weighted mass emissions for the regulated emissions source using Equation 4 of this section:

$$E_{pl\_\_} E_{pl} \times \left(1 - \frac{\%\ \text{reduction}}{100}\right) \qquad (Eq. 4)$$

Where:

$E_{p1released}$ = Calculated process-weighted mass emissions of PM (or total metal HAP) predicted to be released to the atmosphere from the regulated emissions source, pounds of PM or total metal HAP per ton of metal charged; and

E_{p1i} = Process-weighted mass emissions of PM (or total metal HAP) in the uncontrolled regulated exhaust stream, pounds of PM or total metal HAP per ton of metal charged.

(g) To determine compliance with an emissions limit for situations when multiple sources are controlled by a single control device, but only one source operates at a time or other situations that are not expressly considered in paragraphs (d) through (f) of this section, you must submit a site-specific test plan to the Administrator for approval according to the requirements in §63.7(c)(2) and (3).

(h) You must conduct each opacity test for fugitive emissions according to the requirements in §63.6(h)(5) and Table 1 to this subpart.

(i) You must conduct subsequent performance tests to demonstrate compliance with the opacity limit in §63.10895(e) no less frequently than every 6 months and each time you make a process change likely to increase fugitive emissions.

(j) In your performance test report, you must certify that the capture system operated normally during the performance test.

(k) You must establish operating limits for a new affected source during the initial performance test according to the requirements in Table 2 of this subpart.

(l) You may change the operating limits for a wet scrubber, electrostatic precipitator, or baghouse if you meet the requirements in paragraphs (l)(1) through (3) of this section.

(1) Submit a written notification to the Administrator of your plan to conduct a new performance test to revise the operating limit.

(2) Conduct a performance test to demonstrate compliance with the applicable emissions limitation in §63.10895(c).

(3) Establish revised operating limits according to the applicable procedures in Table 2 to this subpart.

§63.10899 What are my recordkeeping and reporting requirements?

(a) As required by §63.10(b)(1), you must maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(b) In addition to the records required by 40 CFR 63.10, you must keep records of the information specified in paragraphs (b)(1) through (13) of this section.

(1) You must keep records of your written materials specifications according to §63.10885(a) and records that demonstrate compliance with the requirements for restricted metallic scrap in §63.10885(a)(1) and/or for the use of general scrap in §63.10885(a)(2) and for mercury in §63.10885(b)(1) through (3), as applicable. You must keep records documenting compliance with §63.10885(b)(4) for scrap that does not contain motor vehicle scrap.

(2) If you are subject to the requirements for a site-specific plan for mercury under §63.10885(b)(1), you must:

(i) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and

(ii) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that you have conducted periodic inspections or taken other means of corroboration as required under §63.10885(b)(1)(ii)(C). You must identify which option in §63.10885(b) applies to each scrap provider, contract, or shipment. You may include this information in the semiannual compliance reports required under paragraph (c) of this section.

(3) If you are subject to the option for approved mercury programs under §63.10885(b)(2), you must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If your scrap provider is a broker, you must maintain records identifying each of the broker's scrap suppliers and documenting the scrap supplier's participation in an approved mercury switch removal program.

(4) You must keep records to document use of any binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by §63.10886. These records must be the Material Safety Data Sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.

(5) You must keep records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, Material Safety Data Sheets, or other documentation that provide information on the binder or coating materials used.

(6) You must keep records of monthly metal melt production for each calendar year.

(7) You must keep a copy of the operation and maintenance plan as required by §63.10896(a) and records that demonstrate compliance with plan requirements.

(8) If you use emissions averaging, you must keep records of the monthly metal melting rate for each furnace at your iron and steel foundry, and records of the calculated pounds of PM or total metal HAP per ton of metal melted for the group of all metal melting furnaces required by §63.10897(h).

(9) If applicable, you must keep records for bag leak detection systems as follows:

(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; and

(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.

(10) You must keep records of capture system inspections and repairs as required by §63.10897(e).

(11) You must keep records demonstrating conformance with your specifications for the operation of CPMS as required by §63.10897(f).

(12) You must keep records of corrective action(s) for exceedances and excursions as required by §63.10897(g).

(13) You must record the results of each inspection and maintenance required by §63.10897(a) for PM control devices in a logbook (written or electronic format). You must keep the logbook onsite and make the logbook available to the Administrator upon request. You must keep records of the information specified in paragraphs (b)(13)(i) through (iii) of this section.

(i) The date and time of each recorded action for a fabric filter, the results of each inspection, and the results of any maintenance performed on the bag filters.

(ii) The date and time of each recorded action for a wet or dry electrostatic precipitator (including ductwork), the results of each inspection, and the results of any maintenance performed for the electrostatic precipitator.

(iii) The date and time of each recorded action for a wet scrubber (including ductwork), the results of each inspection, and the results of any maintenance performed on the wet scrubber.

(c) You must submit semiannual compliance reports to the Administrator according to the requirements in §63.10(e). The reports must include, at a minimum, the following information as applicable:

(1) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective action taken;

(2) Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other calibration checks, if applicable); and

(3) Summary information on any deviation from the pollution prevention management practices in §§63.10885 and 63.10886 and the operation and maintenance requirements §63.10896 and the corrective action taken.

(d) You must submit written notification to the Administrator of the initial classification of your new or existing affected source as a large iron and steel facility as required in §63.10880(f) and (g), as applicable, and for any subsequent reclassification as required in §63.10881(d) or (e), as applicable.

§63.10900 What parts of the General Provisions apply to my large foundry?

(a) If you own or operate a new or existing affected source that is classified as a large foundry, you must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 3 of this subpart.

(b) If you own or operator a new or existing affected source that is classified as a large foundry, your notification of compliance status required by §63.9(h) must include each applicable certification of compliance, signed by a responsible official, in Table 4 of this subpart.

Other Requirements and Information

§63.10905 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by EPA or a delegated authority 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 paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (6) of this section.

(1) Approval of an alternative non-opacity emissions standard under 40 CFR 63.6(g).

(2) Approval of an alternative opacity emissions standard under §63.6(h)(9).

(3) Approval of a 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” under is defined in §63.90.

(5) Approval of a major change to recordkeeping and reporting under §63.10(f). A “major change to recordkeeping/reporting” is defined in §63.90.

(6) Approval of a local, State, or national mercury switch removal program under §63.10885(b)(2).

§63.10906 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section.

Annual metal melt capacity means the lower of the total metal melting furnace equipment melt rate capacity assuming 8,760 operating hours per year summed for all metal melting furnaces at the foundry or, if applicable, the maximum permitted metal melt production rate for the iron and steel foundry calculated on an annual basis. Unless otherwise specified in the permit, permitted metal melt production rates that are not specified on an annual basis must be annualized assuming 24 hours per day, 365 days per year of operation. If the permit limits the operating hours of the furnace(s) or foundry, then the permitted operating hours are used to annualize the maximum permitted metal melt production rate.

Annual metal melt production means the quantity of metal melted in a metal melting furnace or group of all metal melting furnaces at the iron and steel foundry in a given calendar year. For the purposes of this subpart, metal melt production is determined on the basis on the quantity of metal charged to each metal melting furnace; the sum of the metal melt production for each furnace in a given calendar year is the annual metal melt production of the foundry.

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, electrodynamic, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Binder chemical means a component of a system of chemicals used to bind sand together into molds, mold sections, and cores through chemical reaction as opposed to pressure.

Capture system means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device or to the atmosphere. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: Duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Chlorinated plastics means solid polymeric materials that contain chlorine in the polymer chain, such as polyvinyl chloride (PVC) and PVC copolymers.

Control device means the air pollution control equipment used to remove particulate matter from the effluent gas stream generated by a metal melting furnace.

Cupola means a vertical cylindrical shaft furnace that uses coke and forms of iron and steel such as scrap and foundry returns as the primary charge components and melts the iron and steel through combustion of the coke by a forced upward flow of heated air.

Deviation means any instance in which an affected source or an owner or operator of such an affected source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emissions limitation (including operating limits), management practice, or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any iron and steel foundry required to obtain such a permit; or

(3) Fails to meet any emissions limitation (including operating limits) or management standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Electric arc furnace means a vessel in which forms of iron and steel such as scrap and foundry returns are melted through resistance heating by an electric current flowing through the arcs formed between the electrodes and the surface of the metal and also flowing through the metal between the arc paths.

Electric induction furnace means a vessel in which forms of iron and steel such as scrap and foundry returns are melted though resistance heating by an electric current that is induced in the metal by passing an alternating current through a coil surrounding the metal charge or surrounding a pool of molten metal at the bottom of the vessel.

Exhaust stream means gases emitted from a process through a conveyance as defined in this subpart.

Foundry operations mean all process equipment and practices used to produce metal castings for shipment. *Foundry operations* include: Mold or core making and coating; scrap handling and preheating; metal melting and inoculation; pouring, cooling, and shakeout; shotblasting, grinding, and other metal finishing operations; and sand handling.

Free liquids means material that fails the paint filter liquids test by EPA Method 9095B, Revision 2, November 1994 (incorporated by reference—see §63.14). That is, if any portion of the material passes through and drops from the filter within the 5-minute test period, the material contains *free liquids.*

Fugitive emissions means any pollutant released to the atmosphere that is not discharged through a system of equipment that is specifically designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. *Fugitive emissions* include pollutants released to the atmosphere through windows, doors, vents, or other building openings. *Fugitive emissions* also include pollutants released to the atmosphere through other general building ventilation or exhaust systems not specifically designed to capture pollutants at the source.

Furfuryl alcohol warm box mold or core making line means a mold or core making line in which the binder chemical system used is that system commonly designated as a furfuryl alcohol warm box system by the foundry industry.

Iron and steel foundry means a facility or portion of a facility that melts scrap, ingot, and/or other forms of iron and/or steel and pours the resulting molten metal into molds to produce final or near final shape products for introduction into commerce. Research and development facilities, operations that only produce non-commercial castings, and operations associated with nonferrous metal production are not included in this definition.

Large foundry means, for an existing affected source, an iron and steel foundry with an annual metal melt production greater than 20,000 tons. For a new affected source, *large foundry* means an iron and steel foundry with an annual metal melt capacity greater than 10,000 tons.

Mercury switch means each mercury-containing capsule or switch assembly that is part of a convenience light switch mechanism installed in a vehicle.

Metal charged means the quantity of scrap metal, pig iron, metal returns, alloy materials, and other solid forms of iron and steel placed into a metal melting furnace. Metal charged does not include the quantity of fluxing agents or, in the case of a cupola, the quantity of coke that is placed into the metal melting furnace.

Metal melting furnace means a cupola, electric arc furnace, electric induction furnace, or similar device that converts scrap, foundry returns, and/or other solid forms of iron and/or steel to a liquid state. This definition does not include a holding furnace, an argon oxygen decarburization vessel, or ladle that receives molten metal from a metal melting furnace, to which metal ingots or other material may be added to adjust the metal chemistry.

Mold or core making line means the collection of equipment that is used to mix an aggregate of sand and binder chemicals, form the aggregate into final shape, and harden the formed aggregate. This definition does not include a line for making greensand molds or cores.

Motor vehicle means an automotive vehicle not operated on rails and usually is operated with rubber tires for use on highways.

Motor vehicle scrap means vehicle or automobile bodies, including automobile body hulks, that have been processed through a shredder. *Motor vehicle scrap* does not include automobile manufacturing bundles, or miscellaneous vehicle parts, such as wheels, bumpers, or other components that do not contain mercury switches.

Nonferrous metal means any pure metal other than iron or any metal alloy for which an element other than iron is its major constituent in percent by weight.

On blast means those periods of cupola operation when combustion (blast) air is introduced to the cupola furnace and the furnace is capable of producing molten metal. On blast conditions are characterized by both blast air introduction and molten metal production.

Responsible official means responsible official as defined in §63.2.

Scrap preheater means a vessel or other piece of equipment in which metal scrap that is to be used as melting furnace feed is heated to a temperature high enough to eliminate volatile impurities or other tramp materials by direct flame heating or similar means of heating. Scrap dryers, which solely remove moisture from metal scrap, are not considered to be scrap preheaters for purposes of this subpart.

Scrap provider means the person (including a broker) who contracts directly with an iron and steel foundry to provide motor vehicle scrap. Scrap processors such as shredder operators or vehicle dismantlers that do not sell scrap directly to a foundry are not *scrap providers.*

Scrubber blowdown means liquor or slurry discharged from a wet scrubber that is either removed as a waste stream or processed to remove impurities or adjust its composition or pH.

Small foundry means, for an existing affected source, an iron and steel foundry that has an annual metal melt production of 20,000 tons or less. For a new affected source, *small foundry* means an iron and steel foundry that has an annual metal melt capacity of 10,000 tons or less.

Total metal HAP means, for the purposes of this subpart, the sum of the concentrations of compounds of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium as measured by EPA Method 29 (40 CFR part 60, appendix A-8). Only the measured concentration of the listed analytes that are present at concentrations exceeding one-half the quantitation limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantitation limit of the analytical method, the concentration of those analytes will be assumed to be zero for the purposes of calculating the total metal HAP for this subpart.

Table 1 to Subpart ZZZZZ of Part 63—Performance Test Requirements for New and Existing Affected Sources Classified as Large Foundries

As required in §63.10898(c) and (h), you must conduct performance tests according to the test methods and procedures in the following table:

For. . .	You must. . .	According to the following requirements. . .
1. Each metal melting furnace subject to a PM or total metal HAP limit in §63.10895(c)	a. Select sampling port locations and the number of traverse points in each stack or duct using EPA Method 1 or 1A (40 CFR part 60, appendix A) b. Determine volumetric flow rate of the stack gas using Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A) c. Determine dry molecular weight of the stack gas using EPA Method 3, 3A, or 3B (40 CFR part 60, appendix A).[1] d. Measure moisture content of the stack gas using EPA Method 4 (40 CFR part 60, A) e. Determine PM concentration using EPA Method 5, 5B, 5D, 5F, or 5I, as applicable or total metal HAP concentration using EPA Method 29 (40 CFR part 60, appendix A)	Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere. i. Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch. ii. For Method 29, only the measured concentration of the listed metal HAP analytes that are present at concentrations exceeding one-half the quantification limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantification limit of the analytical method, the concentration of those analytes is assumed to be zero for the purposes of calculating the total metal HAP.
		iii. A minimum of three valid test runs are needed to comprise a PM or total metal HAP performance test.
		iv. For cupola metal melting furnaces, sample PM or total metal HAP only during times when the cupola is on blast.
		v. For electric arc and electric induction metal melting furnaces, sample PM or total metal HAP only during normal melt production conditions, which may include, but are not limited to the following operations: Charging, melting, alloying, refining, slagging, and tapping.
		vi. Determine and record the total combined weight of tons of metal charged during the duration of each test run. You must compute the process-weighted mass emissions of PM according to Equation 1 of §63.10898(d) for an individual furnace or Equation 2 of §63.10898(e) for the group of all metal melting furnaces at the foundry.

For. . .	You must. . .	According to the following requirements. . .
2. Fugitive emissions from buildings or structures housing any iron and steel foundry emissions sources subject to opacity limit in §63.10895(e)	a. Using a certified observer, conduct each opacity test according to EPA Method 9 (40 CFR part 60, appendix A-4) and 40 CFR 63.6(h)(5)	i. The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation.
		ii. During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the opacity test such that the opacity observations are recorded during the PM or total metal HAP performance tests.
	b. As alternative to Method 9 performance test, conduct visible emissions test by Method 22 (40 CFR part 60, appendix A-7). The test is successful if no visible emissions are observed for 90 percent of the readings over 1 hour. If VE is observed greater than 10 percent of the time over 1 hour, then the facility must conduct another performance test as soon as possible, but no later than 15 calendar days after the Method 22 test, using Method 9 (40 CFR part 60, appendix A-4)	i. The observer may identify a limited number of openings or vents that appear to have the highest visible emissions and perform observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single observation for the entire building or structure may be performed, if the fugitive release points afford such an observation. ii. During testing intervals when PM or total metal HAP performance tests, if applicable, are being conducted, conduct the visible emissions test such that the observations are recorded during the PM or total metal HAP performance tests.

[1]You may also use as an alternative to EPA Method 3B (40 CFR part 60, appendix A), the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas, ANSI/ASME PTC 19.10-1981, “Flue and Exhaust Gas Analyses” (incorporated by reference—see §63.14).

Table 2 to Subpart ZZZZZ of Part 63—Procedures for Establishing Operating Limits for New Affected Sources Classified as Large Foundries

As required in §63.10898(k), you must establish operating limits using the procedures in the following table:

For . . .	You must . . .
1. Each wet scrubber subject to the operating limits in §63.10895(d)(1) for pressure drop and scrubber water flow rate.	Using the CPMS required in §63.10897(b), measure and record the pressure drop and scrubber water flow rate in intervals of no more than 15 minutes during each PM or total metal HAP test run. Compute and record the average pressure drop and average scrubber water flow rate for all the valid sampling runs in which the applicable emissions limit is met.
2. Each electrostatic precipitator subject to operating limits in §63.10895(d)(2) for voltage and secondary current (or total power input).	Using the CPMS required in §63.10897(c), measure and record voltage and secondary current (or total power input) in intervals of no more than 15 minutes during each PM or total metal HAP test run. Compute and record the minimum hourly average voltage and secondary current (or total power input) from all the readings for each valid sampling run in which the applicable emissions limit is met.

Table 3 to Subpart ZZZZZ of Part 63—Applicability of General Provisions to New and Existing Affected Sources Classified as Large Foundries

As required in §63.10900(a), you must meet each requirement in the following table that applies to you:

Citation	Subject	Applies to large foundry?	Explanation
63.1	Applicability	Yes.	
63.2	Definitions	Yes.	
63.3	Units and abbreviations	Yes.	
63.4	Prohibited activities	Yes.	
63.5	Construction/reconstruction	Yes.	
63.6(a)-(g)	Compliance with standards and maintenance requirements	Yes.	
63.6(h)	Opacity and visible emissions standards	Yes.	
63.6(i)(i)-(j)	Compliance extension and Presidential compliance exemption	Yes.	
63.7(a)(3), (b)-(h)	Performance testing requirements	Yes.	
63.7(a)(1)-(a)(2)	Applicability and performance test dates	No	Subpart ZZZZZ specifies applicability and performance test dates.
63.8(a)(1)-(a)(3), (b), (c)(1)-(c)(3), (c)(6)-(c)(8), (d), (e), (f)(1)-(f)(6), (g)(1)-(g)(4)	Monitoring requirements	Yes.	
63.8(a)(4)	Additional monitoring requirements for control devices in §63.11	No.	
63.8(c)(4)	Continuous monitoring system (CMS) requirements	No.	
63.8(c)(5)	Continuous opacity monitoring system (COMS) minimum procedures	No.	
63.8(g)(5)	Data reduction	No.	
63.9	Notification requirements	Yes.	
63.10(a), (b)(1)-(b)(2)(xii) -(b)(2)(xiv), (b)(3), (d)(1)-(2), (e)(1)-(2), (f)	Recordkeeping and reporting requirements	Yes.	
63.10(c)(1)-(6), (c)(9)-(15)	Additional records for continuous monitoring systems	No.	
63.10(c)(7)-(8)	Records of excess emissions and parameter monitoring exceedances for CMS	Yes.	
63.10(d)(3)	Reporting opacity or visible emissions observations	Yes.	
63.10(e)(3)	Excess emissions reports	Yes.	
63.10(e)(4)	Reporting COMS data	No.	
63.11	Control device requirements	No.	
63.12	State authority and delegations	Yes.	
63.13-63.16	Addresses of State air pollution control agencies and EPA regional offices. Incorporation by reference. Availability of information and confidentiality. Performance track provisions	Yes.	

Table 4 to Subpart ZZZZZ of Part 63—Compliance Certifications for New and Existing Affected Sources Classified as Large Iron and Steel Foundries

As required by §63.10900(b), your notification of compliance status must include certifications of compliance according to the following table:

For. . .	Your notification of compliance status required by §63.9(h) must include this certification of compliance, signed by a responsible official:
Each new or existing affected source classified as a large foundry and subject to scrap management requirements in §63.10885(a)(1) and/or (2)	"This facility has prepared, and will operate by, written material specifications for metallic scrap according to §63.10885(a)(1)" and/or "This facility has prepared, and will operate by, written material specifications for general iron and steel scrap according to §63.10885(a)(2)."
Each new or existing affected source classified as a large foundry and subject to mercury switch removal requirements in §63.10885(b)	"This facility has prepared, and will operate by, written material specifications for the removal of mercury switches and a site-specific plan implementing the material specifications according to §63.10885(b)(1)" and/or "This facility participates in and purchases motor vehicles scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the EPA Administrator according to §63.10885(b)(2) and have prepared a plan for participation in the EPA approved program according to §63.10885(b)(2)(iv)" and/or "The only materials from motor vehicles in the scrap charged to a metal melting furnace at this facility are materials recovered for their specialty alloy content in accordance with §63.10885(b)(3) which are not reasonably expected to contain mercury switches" and/or "This facility complies with the requirements for scrap that does not contain motor vehicle scrap in accordance with §63.10885(b)(4)."
Each new or existing affected source classified as a large foundry and subject to §63.10886	"This facility complies with the no methanol requirement for the catalyst portion of each binder chemical formulation for a furfuryl alcohol warm box mold or core making line according to §63.10886."
Each new or existing affected source classified as a large foundry and subject to §63.10895(b)	"This facility operates a capture and collection system for each emissions source subject to this subpart according to §63.10895(b)."
Each existing affected source classified as a large foundry and subject to §63.10895(c)(1)	"This facility complies with the PM or total metal HAP emissions limit in §63.10895(c) for each metal melting furnace or group of all metal melting furnaces based on a previous performance test in accordance with §63.10898(a)(1)."
Each new or existing affected source classified as a large foundry and subject to §63.10896(a)	"This facility has prepared and will operate by an operation and maintenance plan according to §63.10896(a)."
Each new or existing (if applicable) affected source classified as a large foundry and subject to §63.10897(d)	"This facility has prepared and will operate by a site-specific monitoring plan for each bag leak detection system and submitted the plan to the Administrator for approval according to §63.10897(d)(2)."

Attachment C

Part 70 Operating Permit No: T091-39531-00020

[Downloaded from the eCFR on July 23, 2014]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

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

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

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

What This Subpart Covers

§63.6580 What is the purpose of subpart ZZZZ?

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

[73 FR 3603, Jan. 18, 2008]

§63.6585 Am I subject to this subpart?

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

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

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

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

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

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

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that 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).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that 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).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that 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).

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

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

This subpart applies to each affected source.

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

(1) *Existing stationary RICE.*

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

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

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

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

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

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

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

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

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

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

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

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is 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).

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

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

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

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

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is 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).

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

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

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

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

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

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

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

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

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

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

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

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

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

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

Emission and Operating Limitations

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

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

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

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

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

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

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

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

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

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

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

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

[78 FR 6701, Jan. 30, 2013]

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

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

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

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

§63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is 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) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is 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), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.

[78 FR 6702, Jan. 30, 2013]

General Compliance Requirements

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

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

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

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

Testing and Initial Compliance Requirements

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

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

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

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

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

§63.6615 When must I conduct subsequent performance tests?

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

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

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

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

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

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

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

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

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

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

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

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

Where:

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

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

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu)

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2, as follows:

$$X_{CO2} = \frac{5.9}{F_o} \quad (Eq. 3)$$

Where:

X_{CO2} = CO_2 correction factor, percent.

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

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO2}}{\%CO_2} \quad (Eq. 4)$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O_2.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO2} = CO_2 correction factor, percent.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010; 78 FR 6702, Jan. 30, 2013]

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

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O_2 or CO_2 according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

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

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR

part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

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

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO_2 concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.,* thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

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

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

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

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

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

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

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

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

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

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

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

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013]

§63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

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

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

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

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least three test runs.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

Continuous Compliance Requirements

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

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

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

§63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

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

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

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

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

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

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

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

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the

engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6704, Jan. 30, 2013]

Notifications, Reports, and Records

§63.6645 What notifications must I submit and when?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013]

§63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

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

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

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

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

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

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

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

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is 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) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*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 report must be submitted to the Administrator at the appropriate address listed in §63.13.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013]

§63.6655 What records must I keep?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(2) An existing stationary emergency RICE.

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

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

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

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

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30, 2013]

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

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

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

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

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

Other Requirements and Information

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

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

site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

§63.6670 Who implements and enforces this subpart?

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

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

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

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

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

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

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

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

§63.6675 What definitions apply to this subpart?

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

Alaska Railbelt Grid means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

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

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

Backup power for renewable energy means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see §63.14).

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

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

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

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

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

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

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

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

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

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2.

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

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.

(2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §63.6640(f).

(3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §63.6640(f)(2)(ii) or (iii) and §63.6640(f)(4)(i) or (ii).

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

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

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

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

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.

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

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

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

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2.

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

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

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

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

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

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

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

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

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

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

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

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X, CO, and volatile organic compounds (VOC) into CO_2, nitrogen, and water.

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

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

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

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

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

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

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

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8.

Remote stationary RICE means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

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

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

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

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

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

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

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

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

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

Subpart means 40 CFR part 63, subpart ZZZZ.

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

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

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011; 78 FR 6706, Jan. 30, 2013]

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

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

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2	

[1] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

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

Table 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and using NSCR;	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.[1]
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and not using NSCR.	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6706, Jan. 30, 2013]

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

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

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O_2. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O_2 until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O_2	

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O_2	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing CI Stationary RICE >500 HP

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; and existing CI stationary RICE >500 HP:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and
	b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1]
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and	Comply with any operating limitations approved by the Administrator.
New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and	

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

[78 FR 6707, Jan. 30, 2013]

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

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

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first.[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first.[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3]	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2.	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2.	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2.	
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O_2.	

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

[2]Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2c of this subpart.

[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]

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

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

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	
10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE.	
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1] b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.

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

[78 FR 6709, Jan. 30, 2013]

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

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

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually.[1]
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

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

[78 FR 6711, Jan. 30, 2013]

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

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

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

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO and O_2 measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure the O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)[ac] (heated probe not necessary)	(b) Measurements to determine O_2 must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005)[abc] (heated probe not necessary) or Method 10 of 40 CFR part 60, appendix A-4	(c) The CO concentration must be at 15 percent O_2, dry basis.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
2. 4SRB stationary RICE	a. reduce formaldehyde emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For formaldehyde, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A.
		ii. Measure O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)[a] (heated probe not necessary)	(a) Measurements to determine O_2 concentration must be made at the same time as the measurements for formaldehyde or THC concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03[a]	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formalde-hyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03[a], provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device	(1) Method 25A, reported as propane, of 40 CFR part 60, appendix A-7	(a) THC concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
3. Stationary RICE	a. limit the concentra-tion of formalde-hyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and		(a) For formaldehyde, CO, O_2, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter *and* the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A. If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O_2 concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)[a] (heated probe not necessary)	(a) Measurements to determine O_2 concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the station-ary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03[a]	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iv. Measure formalde-hyde at the exhaust of the station-ary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03[a], provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. measure CO at the exhaust of the station-ary RICE	(1) Method 10 of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (2005)[ac], Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03[a]	(a) CO concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[a]You may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

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

[79 FR 11290, Feb. 27, 2014]

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

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

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions and not using oxidation catalyst	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O_2, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

[78 FR 6712, Jan. 30, 2013]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

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

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

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

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent.[a]
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit[a]; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit[a]; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

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

[78 FR 6715, Jan. 30, 2013]

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

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

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in §63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)-(9) for engines that are limited use stationary RICE subject to numerical emission limitations.
		b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
		c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and	i. Annually, according to the requirements in §63.6650.
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in §63.6650(b)(1)-(5).

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
4. Emergency stationary RICE that operate or are contractually obligated to be available for more than 15 hours per year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operate for the purposes specified in §63.6640(f)(4)(ii)	Report	a. The information in §63.6650(h)(1)	i. annually according to the requirements in §63.6650(h)(2)-(3).

[78 FR 6719, Jan. 30, 2013]

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

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

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)-(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)-(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)-(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)-(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)-(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	No	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No	
§63.8(c)(2)-(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)-(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)-(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.
§63.10(b)(2)(i)-(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)-(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)-(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010, as amended at 78 FR 6720, Jan. 30, 2013]

Appendix A—Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines

1.0 Scope and Application. What is this Protocol?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O_2) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O_2).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O_2)	*7782-44-7*	

1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O_2, or no more than twice the permitted CO level.

1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

2.0 Summary of Protocol

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O_2 gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (e.g., heated or unheated sample lines, thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

3.0 Definitions

3.1 Measurement System. The total equipment required for the measurement of CO and O_2 concentrations. The measurement system consists of the following major subsystems:

3.1.1 Data Recorder. A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

3.1.2 Electrochemical (EC) Cell. A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

3.1.3 Interference Gas Scrubber. A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

3.1.4 Moisture Removal System. Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

3.1.5 Sample Interface. The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

3.2 Nominal Range. The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

3.3 Calibration Gas. A vendor certified concentration of a specific analyte in an appropriate balance gas.

3.4 Zero Calibration Error. The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

3.5 Up-Scale Calibration Error. The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

3.6 Interference Check. A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.

3.7 Repeatability Check. A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.

3.8 Sample Flow Rate. The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.

3.9 Sampling Run. A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then purges the EC cells with CO-free air. The refresh phase replenishes requisite O_2 and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: pre- sampling calibrations; stack gas sampling; post-sampling calibration checks; and measurement system repeatability checks. Stack gas sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.

3.10 Sampling Day. A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.

3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check. The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.

3.12 Performance-Established Configuration. The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

4.0 Interferences.

When present in sufficient concentrations, NO and NO_2 are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

5.0 Safety. [Reserved]

6.0 Equipment and Supplies.

6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

6.2 Measurement System Components.

6.2.1 Sample Probe. A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

6.2.2 Sample Line. Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

6.2.3 Calibration Assembly (optional). A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

6.2.4 Particulate Filter (optional). Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

6.2.5 Sample Pump. A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.8 Sample Flow Rate Monitoring. An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

6.2.9 Sample Gas Manifold (optional). A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.10 EC cell. A device containing one or more EC cells to determine the CO and O_2 concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

6.2.11 Data Recorder. A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O_2; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 Reagents and Standards. What calibration gases are needed?

7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O_2. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ±5 percent of the label value. Dry ambient air (20.9 percent O_2) is acceptable for calibration of the O_2 cell. If needed, any lower percentage O_2 calibration gas must be a mixture of O_2 in nitrogen.

7.1.1 Up-Scale CO Calibration Gas Concentration. Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

7.1.2 Up-Scale O_2 Calibration Gas Concentration.

Select an O_2 gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O_2. When the average exhaust gas O_2 readings are above 6 percent, you may use dry ambient air (20.9 percent O_2) for the up-scale O_2 calibration gas.

7.1.3 Zero Gas. Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO_2).

8.0 Sample Collection and Analysis

8.1 Selection of Sampling Sites.

8.1.1 Control Device Inlet. Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.1.2 Exhaust Gas Outlet. Select a sampling site located at least two stack diameters downstream of any disturbance (e.g., turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.2 Stack Gas Collection and Analysis. Prior to the first stack gas sampling run, conduct that the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the “sample conditioning phase” once per minute until constant readings are obtained. Then begin the “measurement data phase” and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the “measurement data phase” readings to calculate the average stack gas CO and O_2 concentrations.

8.3 EC Cell Rate. Maintain the EC cell sample flow rate so that it does not vary by more than ±10 percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than ±3 percent, as instructed by the EC cell manufacturer.

9.0 Quality Control (Reserved)

10.0 Calibration and Standardization

10.1 Pre-Sampling Calibration. Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

10.1.1 Zero Calibration. For both the O_2 and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

10.1.2 Zero Calibration Tolerance. For each zero gas introduction, the zero level output must be less than or equal to ±3 percent of the up-scale gas value or ±1 ppm, whichever is less restrictive, for the CO channel and less than or equal to ±0.3 percent O_2 for the O_2 channel.

10.1.3 Up-Scale Calibration. Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this "sample conditioning phase" once per minute until readings are constant for at least two minutes. Then begin the "measurement data phase" and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the "refresh phase" by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).

10.1.4 Up-Scale Calibration Error. The mean of the difference of the "measurement data phase" readings from the reported standard gas value must be less than or equal to ±5 percent or ±1 ppm for CO or ±0.5 percent O_2, whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single "measurement data phase" reading must be less than or equal to ±2 percent or ±1 ppm for CO or ±0.5 percent O_2, whichever is less restrictive, respectively.

10.2 Post-Sampling Calibration Check. Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

11.0 Analytical Procedure

The analytical procedure is fully discussed in Section 8.

12.0 Calculations and Data Analysis

Determine the CO and O_2 concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the "measurement data phase".

13.0 Protocol Performance

Use the following protocols to verify consistent analyzer performance during each field sampling day.

13.1 Measurement Data Phase Performance Check. Calculate the mean of the readings from the "measurement data phase". The maximum allowable deviation from the mean for each of the individual readings is ±2 percent, or ±1 ppm,

whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

Example: A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than ±2 percent *or* ±1 ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed).

13.2 Interference Check. Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO_2 gas standards that are generally recognized as representative of diesel-fueled engine NO and NO_2 emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

13.2.1 Interference Response. The combined NO and NO_2 interference response should be less than or equal to ±5 percent of the up-scale CO calibration gas concentration.

13.3 Repeatability Check. Conduct the following check once for each nominal range that is to be used on the CO EC cell within 5 days prior to each field sampling program. If a field sampling program lasts longer than 5 days, repeat this check every 5 days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.

13.3.1 Repeatability Check Procedure. Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow Section 10.1.3. Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.

13.3.2 Repeatability Check Calculations. Determine the highest and lowest average “measurement data phase” CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The absolute value of the difference between the maximum and minimum average values recorded must not vary more than ±3 percent or ±1 ppm of the up-scale gas value, whichever is less restrictive.

14.0 Pollution Prevention (Reserved)

15.0 Waste Management (Reserved)

16.0 Alternative Procedures (Reserved)

17.0 References

(1) “Development of an Electrochemical Cell Emission Analyzer Test Protocol”, Topical Report, Phil Juneau, Emission Monitoring, Inc., July 1997.

(2) “Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers, and Process Heaters Using Portable Analyzers”, EMC Conditional Test Protocol 30 (CTM-30), Gas Research Institute Protocol GRI-96/0008, Revision 7, October 13, 1997.

(3) “ICAC Test Protocol for Periodic Monitoring”, EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean Air Companies, September 8, 1999.

(4) “Code of Federal Regulations”, Protection of Environment, 40 CFR, Part 60, Appendix A, Methods 1-4; 10.

Table 1: Appendix A—Sampling Run Data.

Facility_____ Engine I.D._____ Date_____											
Run Type:	(_)			(_)			(_)			(_)	
(X)	Pre-Sample Calibration			Stack Gas Sample			Post-Sample Cal. Check			Repeatability Check	
Run #	1	1	2	2	3	3	4	4	Time	Scrub. OK	Flow- Rate
Gas	O_2	CO	O_2	CO	O_2	CO	O_2	CO			
Sample Cond. Phase											
″											
″											
″											
″											
Measurement Data Phase											
″											
″											
″											
″											
″											
″											
″											
″											
″											
″											
Mean											
Refresh Phase											
″											
″											
″											
″											

[78 FR 6721, Jan. 30, 2013]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Description and Location

Source Name:	**Weil-McLain**
Source Location:	**500 Blaine Street , Michigan City, Indiana 46360**
County:	**LaPorte**
SIC Code:	**3321 (Gray and ductile Iron Foundries)**
Permit Renewal No.:	**T091-39531-00020**
Permit Reviewer:	**Rithika Reddy**

On January 23, 2018, Weil-McLain submitted an application to the Office of Air Quality (OAQ) requesting to renew its operating permit. OAQ has reviewed the operating permit renewal application from Weil-McLain relating to the operation of a stationary gray iron foundry. Weil-McLain was issued its second Part 70 Operating Permit Renewal (T091-32850-00020) on October 23, 2013.

Permitted Emission Units and Pollution Control Equipment

Emissions units' descriptions have been revised to provide clarity.

The source consists of the following permitted emission units:

Metal Melting

(a) One (1) natural gas fired pre-heater, constructed in 2007, with a maximum heat input capacity of 15.8 MMBtu per hour and a maximum metal throughput of 20 tons per hour, controlled by a dust collector, identified as 39-DC-4, and exhausting through stack 39-DC-4.

(b) Four (4) electric induction furnaces, identified as EIF1, EIF2, EIF3, and EIF4, constructed in 1991, each capable of melting a maximum of 5 tons per hour of metal, with metal charging emissions controlled in part by a dust collector, identified as 39-DC-4, and exhausting through stack 39-DC-4, and with the melting and pouring emissions uncontrolled and exhausting inside the building;

Under 40 CFR Part 63, Subpart ZZZZZ, the electric induction furnaces are considered as affected facilities.

(c) One (1) electric holding furnace, constructed in 1971, with a maximum molten metal storage capacity of 20 tons, with the transfer of metal from the carrier ladle to the holding furnace, uncontrolled, and exhausting through stack 36-E-24.

Raw Material Handling and Preparation

(d) One (1) furnace charge handling system, constructed prior to 1977, modified in 1991, with a maximum capacity of 20 tons of metal per hour, controlled by a dust collector, identified as 39-DC-4, exhausting to stack 39-DC-4, and with uncontrolled emissions exhausting indoors.

Under 40 CFR Part 63, Subpart ZZZZZ, the furnace charge handling system is considered as an affected facility.

(e) One (1) indoor scrap handling operation, constructed in 2001, controlled by a baghouse, identified as 39-DC-5, exhausting through stack 39-DC-5, and consisting of the following:

(1) One (1) metal scrap crusher, with a maximum scrap metal throughput of 15 tons per hour,

(2) One (1) rotary reclaimer, with maximum scrap metal throughput of 15 tons per hour and a maximum sand throughput of 10 tons per hour,

(3) One (1) sand and metal conveyor, with maximum scrap metal throughput of 15 tons per hour and a maximum sand throughput of 10 tons per hour, and

(4) One (1) enclosed conveyor system transporting spent sand to spent sand storage silo, with a maximum sand storage capacity of 100 tons and with a maximum sand throughput of 10 tons per hour.

(f) One (1) pneumatically conveyed raw sand storage silo, constructed in 2001, for the high speed continuous sand mixer, with a maximum sand storage capacity of 75 tons and a maximum sand throughput of 10 tons per hour, controlled by a baghouse, identified as 39-DC-5, and exhausting through stack 39-DC-5.

(g) Two (2) 200-ton capacity core and mold sand silos, identified as Silo#1 and Silo#2, both constructed in 1950, each with a maximum sand throughput of 16.8 tons of sand per hour, both controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8;

(h) One (1) enclosed 10-ton capacity core and mold sand hopper, elevator, and conveyor, constructed in 1975, associated with the no bake/pepset core making process, with a maximum sand throughput of 16.8 tons per hour, uncontrolled, and exhausting indoors.

Core Making

(i) One (1) cold box core making operation consisting of the following:

(1) One (1) cold box sand mixer, constructed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

(2) One (1) cold box core machine, constructed in 1975, with a maximum throughput of 5.8 tons per hour of sand, with VOC and HAP emissions controlled by an afterburner, identified as Afterburner J, and exhausting through stack 37-1-E-2.

(3) One (1) 10 ton capacity cold box line sand hopper and elevator, constructed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

Under 40 CFR Part 63, Subpart ZZZZZ, the cold box core making operation is considered as an affected facility.

(j) One (1) no bake/pepset core making operation, constructed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, exhausting through stack 36-1-DC-7/8, and consisting of:

(1) One (1) no bake/pepset sand mixer, and
(2) One (1) no bake/pepset line sand hopper.

Under 40 CFR Part 63, Subpart ZZZZZ, the no bake/pepset core making operation is considered as an affected facility.

Casting Operations

(k) One (1) mold making operation, identified as A-Line molding, consisting of the following:

(1) One (1) 50-ton capacity bond silo, identified as A-Line bond silo, constructed in 1984, with a maximum capacity of 200 tons of bond per hour, controlled by a bin vent, and exhausting indoors.

(l) One (1) mold making operation, identified as B-Line molding, consisting of the following:

(1) One (1) 88-ton capacity holding silo, identified as B-Line sand silo, constructed in 1987, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8,

(2) One (1) 40-ton capacity bond silo, identified as B-Line bond silo, constructed in 1987, controlled by a bin vent and exhausting inside the building;

The B-Line sand silo and B-Line bond silo are routed so that they join together at the B-Line muller.

(3) One (1) green sand muller, identified as B-Line muller, constructed in 1987, with a maximum green mold sand throughput of 100 tons per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

(4) One (1) metal pouring operation, identified as B-Line pouring, constructed in 1986, with a maximum throughput of 9 tons per hour of molten metal and a maximum throughput of 4 tons of core sand per hour, uncontrolled, and exhausting through stack 36-E-5.

(5) One (1) metal cooling operation, identified as B-Line cooling, constructed in 1986, with a maximum throughput of 9 tons per hour of molten metal and a maximum throughput of 4 tons of core sand per hour, uncontrolled, and exhausting through four (4) roof vents, identified as 36-E-6, 36-E-6(2), 36-E-6(3), and 36-E-6(4);

(6) One (1) mold shakeout operation, identified as B-Line shakeout, constructed in 1987, with a maximum metal casting throughput of 9 tons per hour and a maximum throughput of 4 tons of core sand per hour, controlled by a baghouse, identified as 36-1-DC-7, and exhausting through stack 36-1-DC-7/8.

(m) One (1) mold making operation, identified as Floor molding, consisting of the following:

(1) One (1) high speed continuous sand mixer, identified as Mixer, and associated high speed continuous sand mixer hopper, each constructed in 2001, with a maximum mold sand throughput of 42 tons per hour, with the hopper controlled by a baghouse, identified as 30-DC-6, and exhausting through stack 30-DC-6.

(2) One (1) metal pouring operation, identified as Floor pouring, constructed in 1922, with a maximum throughput of 6 tons per hour of molten metal, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, uncontrolled, and exhausting indoors.

(3) One (1) metal cooling operation, identified as Floor cooling, constructed in 1922, with a maximum throughput of 6 tons per hour of molten metal, a maximum throughput of 3 tons

of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, uncontrolled, and exhausting indoors.

(4) One (1) mold shakeout operation, identified as Floor shakeout, constructed in 1922, with a maximum metal casting throughput of 6 tons per hour, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, uncontrolled, and exhausting indoors.

(n) One (1) casting sand-knockout station, identified as Floor knockout station, constructed in 1965, with a maximum throughput of 15 tons of iron castings per hour, controlled by a baghouse identified as 8-DC-2, and exhausting indoors.

Finishing Operations

(o) One (1) shot blast machine, identified as Wheelabrator shot blast, constructed in 1990, with a maximum throughput of 31 tons of iron castings per hour, consisting of the following:

(1) One (1) loading station, controlled by a baghouse, identified as 36-DC-9, exhausting indoors; and

(2) One (1) shot blast machine, controlled by a baghouse, identified as 36-DC-8, and exhausting indoors.

The Wheelabrator shot blast has a conveyor with hooks. Castings are lifted onto the hooks and are then moved into the shot blast machine via the loading station.

(p) One (1) shot blast machine, identified as Tumble shot blast, constructed in 1972, with a maximum throughput of 3,500 pounds of castings per hour, controlled by a baghouse, identified as 8-DC-2, and exhausting indoors.

(q) One (1) paint spray booth, identified as Spray painting, constructed in 1982, utilizing a high volume low pressure (HVLP) coating application system, using a maximum of 9.8 pounds of coating per hour to coat metal base boards and a maximum of 10 gallons per year of paint thinner, controlled by dry filters, and exhausting through stack 5-E-1.

Miscellaneous Operations

(r) One (1) graphite wash operation, constructed in 2013, with a maximum production rate of 6.00 molds per day, using 2.72 pounds per hour of graphite, and 3.33 pounds per hour of alcohol, uncontrolled, and exhausting indoors.

Graphite is mixed with alcohol, and then sprayed onto the mold. The mold is lit on fire, removing the alcohol, and leaving a graphite coat on the molds.

(s) One (1) top bond operation, constructed in 2013, with a maximum production rate of 25 gallons top bond per month, used on the B-Line to bond green sand material, using 1.46 pounds per hour of top bond material, uncontrolled, and exhausting indoors.

(t) Three (3) cold cleaner parts washers, each constructed in 2013, with a combined maximum usage of 2.40 gallons per day of cleaning material , uncontrolled, and exhausting indoors.

Common control

(1) Dust collector 39-DC-4 is common to the following:
(i) Natural gas fired pre-heater,
(ii) Electric induction furnaces (EIF1-EIF4), and

(iii) Furnace charge handling system.

(2) Baghouse 39-DC-5 is common to the following:
(i) Indoor scrap handling operation and
(ii) Pneumatically conveyed raw sand storage silo.

(3) Baghouse 36-1-DC-7 is common to the following:
(i) Silo#1
(ii) Silo#2
(iii) Cold box sand mixer,
(iv) Cold box line sand hopper and elevator,
(v) No bake/pepset core making operation,
(vi) B-Line sand silo,
(vii) B-Line muller, and
(viiii) B-Line shakeout.

(4) Baghouse 8-DC-2 is common to the following
(i) Floor knockout station and
(ii) Tumble shot blast.

Insignificant Activities

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

(a) Forty- six (46) indirect-fired natural gas combustion sources, constructed prior to 1998, and consisting of:

Emission Unit ID	Location	Capacity (MMBtu/hr)	Stack
7	Auditorium AHU	0.11	NG-S7
12	RTU South Engineering	0.28	NG-S12
13	RTU North Engineering	0.28	NG-S13
14	RTU Old Drafting Area	0.12	NG-S14
15	RTU Drafting Southwest	0.08	NG-S15
16	RTU Drafting Southeast	0.08	NG-S16
17	RTU Drafting Northwest	0.12	NG-S17
18	RTU Drafting Northeast	0.12	NG-S18
20	RTU Bathroom Next To Stairs	0.08	NG-S20
22	RTU IT Area	0.12	NG-S22
23	RTU South Offices Near Front Gate	0.09	NG-S23
24	RTU School	0.12	NG-S24
25	AHU Plant Manager	0.04	NG-S25
28	RTU Maintenance Offices East	0.06	NG-S28
29	RTU QA Lab Office/Machine	0.12	NG-S29
32	RTU Melt Offices/Controls	0.20	NG-S32
35	RTU Trucking Offices	0.12	NG-S35

Emission Unit ID	Location	Capacity (MMBtu/hr)	Stack
36	RTU Machine Shop Lockeroom	0.20	NG-S36
37	RTU QA Offices	0.14	NG-S37
38	RTU Cafeteria	0.30	NG-S38
40	Filter Rack QA Lab	0.11	NG-S40
43	Engineering MAU	0.97	NG-S43
44	Commercial Boiler Thermocycler West	0.40	NG-S44
45	Commercial Boiler Thermocycler Middle	0.40	NG-S45
46	Commercial Boiler Thermocycler East	0.40	NG-S46
47	Storeroom Unit Heater #1	0.15	NG-S47
48	Storeroom Unit Heater #2	0.10	NG-S48
49	Storeroom Unit Heater #3	0.20	NG-S49
56	QA Offices Unit Heater	0.12	NG-S56
51	Cleaning Building Unit Heater #1	0.18	NG-S51
52	Cleaning Building Unit Heater #2	0.18	NG-S52
3025	Compressor Room Rapid	0.75	NG-S3025
1	Roof Next Cooling Tower Southeast	3.58	NG-S1
2	South V Roof	3.58	NG-S2
3	Middle V Roof	3.58	NG-S3
4	North V Roof	3.58	NG-S4
5	Roof Over Compressor/Air Dryer Rooms	2.75	NG-S5
6	Roof Over Cleaning Room South End	3.58	NG-S6
7	Roof Machine Shop South Side	3.58	NG-S7
8	Roof Machine Shop North Side	3.58	NG-S8
9	Indoors Southeast Core Room	3.50	NG-S9
10	Indoors Southwest Core Room	2.76	NG-S10
11	On Ground Outside West Side	1.65	NG-S11
12	On Ground Outside Near Sand Silo	3.58	NG-S12
15	Roof West Side Above A Line	3.03	NG-S15
3144	Former Assembly Warehouse	1.65	NG-S3144

(b) Two (2) natural gas-fired boilers, identified as Office boiler and Town hall boiler, constructed in 2013, each with a maximum heat input capacity of 3.4 MMBtu per hour, uncontrolled, and exhausting indoors.

(c) Grinding operations, constructed prior to 2018, controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

(d) One (1) machining operation, identified as Machining, constructed prior to 1987, modified in 1987, consisting of:

(1) Thirty (30) machines performing tapping, drilling, and reaming on the metal castings, with a maximum metal casting throughput of 20 tons per hour;

(2) Five (5) reamer machines controlled by a baghouse, identified as 8-DC-1;

(3) Three (3) grinding machines, controlled by a baghouse; and

(4) Eight (8) CNC machines used for grinding, cutting and reaming, controlled by coolant.

(e) Six (6) emergency generators, uncontrolled, and exhausting outdoors, consisting of the following:

(1) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G1, constructed in 2006, with a maximum heat input rate of 0.04 MMBtu per hour;

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(2) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G2, constructed in 1999, with a maximum heat input rate of 0.03 MMBtu per hour;

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(3) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G3, constructed in 2009, with a maximum heat input rate of 0.20 MMBtu per hour;

Under NSPS Subpart JJJJ, this emergency generator is an affected facility.
Under NESHAP Subpart ZZZZ, this emergency generator is a new affected facility.

(4) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G4, constructed in 1970, with a maximum heat input rate of 0.19 MMBtu per hour;

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(5) One (1) diesel-fired 2-stroke lean-burn compression-ignition emergency RICE generator, identified as G5, constructed in 1998, with a maximum power output of 1005.75 horsepower (hp);

Under NESHAP Subpart ZZZZ, this emergency generator is an existing affected facility.

(6) One (1) natural gas-fired 4-stroke rich-burn emergency RICE generator, identified as G6, constructed in 2016, with a maximum heat input rate of 1.02 MMBtu per hour;

Under NSPS Subpart JJJJ, this emergency generator is an affected facility. Under NESHAP Subpart ZZZZ, this emergency generator is a new affected facility.

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

(2) This stationary source also includes the following insignificant activities which are not specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Two natural gas-fired combustion units, identified as 1025 ladle heater and 1036 ladle heater, constructed prior to 1998, each with a maximum heat input capacity of 1.50 MMBtu per hour, uncontrolled, and exhausting indoors.

(b) Unpaved roads.

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T091-32850-00020 on October 23, 2018. The source has since received the following approval:

(1) Administrative Amendment No.: 091-37225-00020, issued on June 22, 2016.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in LaPorte County. The following attainment status designations are applicable to LaPorte County:

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.[1]
$PM_{2.5}$	Unclassifiable or attainment effective April 5, 2005, for the annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard.

Pollutant	Designation
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.	

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

(b) $PM_{2.5}$
LaPorte County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

Fugitive Emissions

Since this source is classified as a secondary metal production plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Greenhouse Gas (GHG) Emissions

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) 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 GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	**Tons/year**
PM	>100
PM_{10}	>100
$PM_{2.5}$	>100
SO_2	<100
NO_x	<100
VOC	>100
CO	>100
Single HAP	>25
Total HAP	>10

Unrestricted Potential Emissions	
HAPs	**Tons/Year**
Mn	>10
Pb	>10
Benzene	>10
Phenol	>10
Total	**>25**

(a) The potential to emit (as defined in 326 IAC 2-7-1(30)) of PM10, PM2.5, VOC, and CO is greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(30)) of any single HAP is greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(30)) of a combination of HAPs is greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any new control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)								
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	Total HAPs	Worst Single HAP
Total PTE of Entire Source	**>100**	**>100**	**>100**	**<100**	**<100**	**>100**	**>100**	**<25**	**<10**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	100	NA	NA

* Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because PSD regulated pollutants, PM, PM10, PM2.5, VOC and CO, are emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are 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. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

In order to render the source an area source, the Permittee shall comply with the following:

Single HAP

(a) The total lead (Pb) emissions from the entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The total manganese (Mn) emissions from the entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(c) The total benzene emissions from entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(d) The total phenol emissions from entire source shall not exceed 9.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Total HAPs

(e) The combined HAPs limit from the entire source shall not exceed 24.99 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits shall limit the source-wide total potential to emit of any single HAP to less than ten (10) tons per twelve (12) consecutive month period, and any combination of HAPs to less than twenty five (25) tons per twelve (12) consecutive month period, and render this an area source of HAPs.

These are existing applicable requirements. However, in this renewal. IDEM has made the following changes:

(1) Revised lead emissions limit from "shall be less than 10 tons" to "shall not exceed 9.99 tons".

(2) Revised manganese emissions limit from "shall be less than 10 tons" to "shall not exceed 9.99 tons".
(3) Revised benzene emissions limit from "shall be less than 10 tons" to "shall not exceed 9.99 tons".
(4) Revised phenol emissions limit from "shall be less than 10 tons" to "shall not exceed 9.99 tons".
(5) Revised combined HAPs emissions limit from "shall be less than 25 tons" to "shall not exceed 24.99 tons".

Federal Rule Applicability

Compliance Assurance Monitoring (CAM):

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the regulated pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant (or a surrogate thereof); and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

(b) Pursuant to 40 CFR 64.2(b)(1)(i), emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act are exempt from the requirements of CAM. Therefore, an evaluation was not conducted for any emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act.

(c) Pursuant to 40 CFR 64.2(b)(1)(iii), Acid Rain requirements pursuant to Sections 404, 405, 406, 407(a), 407(b), or 410 of the Clean Air Act are exempt emission limitations or standards. Therefore, CAM was not evaluated for emission limitations or standards for SO_2 and NO_X under the Acid Rain Program.

(d) Pursuant to 40 CFR 64.3(d), if a continuous emission monitoring system (CEMS) is required pursuant to other federal or state authority, the owner or operator shall use the CEMS to satisfy the requirements of CAM according to the criteria contained in 40 CFR 64.3(d).

The following table is used to identify the applicability of CAM to each existing emission unit and each emission limitation or standard for a specified pollutant based on the criteria specified under 40 CFR 64.2:

Emission Unit/Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Pre-heater/ PM*	DC	No	-	-	N [1]	-
Pre-heater/ PM	DC	No	-	-	N [1]	-
Pre-heater/ PM10	DC	No	-	-	N [1]	-
Pre-heater/ PM2.5	DC	No	-	-	N [1]	-
EIF1/ PM*	DC	326 IAC 6-3-2	<100	-	N [2]	-
EIF1/ PM	DC	326 IAC 2-2	-	-	N [3]	-
EIF1/ PM10	DC	326 IAC 2-2	<100	-	N [2]	-
EIF1/ PM2.5	DC	No	-	-	N [1]	-
EIF2/ PM*	DC	326 IAC 6-3-2	<100	-	N [2]	-
EIF2/ PM	DC	326 IAC 2-2	-	-	N [3]	-

Emission Unit/Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
EIF2/ PM10	DC	326 IAC 2-2	<100	-	N [2]	-
EIF2/ PM2.5	DC	No	-	-	N [1]	-
EIF3/ PM*	DC	326 IAC 6-3-2	<100	-	N [2]	-
EIF3/ PM	DC	326 IAC 2-2	-	-	N [3]	-
EIF3/ PM10	DC	326 IAC 2-2	<100	-	N [2]	-
EIF3/ PM2.5	DC	No	-	-	N [1]	-
EIF4/ PM*	DC	326 IAC 6-3-2	<100	-	N [2]	-
EIF4/ PM	DC	326 IAC 2-2	-	-	N [3]	-
EIF4/ PM10	DC	326 IAC 2-2	<100	-	N [2]	-
EIF4/ PM2.5	DC	No	-	-	N [1]	-
Furnace charge handling system/ PM*	DC	326 IAC 6-3-2	<100	-	N [2]	-
Furnace charge handling system/ PM	DC	326 IAC 2-2	-	-	N [3]	-
Furnace charge handling system/ PM10	DC	326 IAC 2-2	<100	-	N [2]	-
Furnace charge handling system/ PM2.5	DC	No	-	-	N [1]	-
Metal scrap crusher/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
Metal scrap crusher/ PM	BH	326 IAC 2-2	-	-	N [3]	-
Metal scrap crusher/ PM10	BH	326 IAC 2-2	<100	-	N [2]	-
Metal scrap crusher/ PM2.5	BH	No	-	-	N [1]	-
Rotary reclaimer/ PM*	BH	326 IAC 6-3-2	>100	<100	Y	N
Rotary reclaimer/ PM	BH	326 IAC 2-2	-	-	N [3]	-
Rotary reclaimer/ PM10	BH	326 IAC 2-2	>100	<100	Y	N
Rotary reclaimer/ PM2.5	BH	No	-	-	N [1]	-
Sand and metal conveyor/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
Sand and metal conveyor/ PM	BH	326 IAC 2-2	-	-	N [3]	-
Sand and metal conveyor/ PM10	BH	326 IAC 2-2	<100	-	N [2]	-
Sand and metal conveyor/ PM2.5	BH	No	-	-	N [1]	-
Enclosed conveyor system/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
Enclosed conveyor system/ PM	BH	326 IAC 2-2	-	-	N [3]	-
Enclosed conveyor system/ PM10	BH	326 IAC 2-2	<100	-	N [2]	-
Enclosed conveyor system/ PM2.5	BH	No	-	-	N [1]	-
Pneumatically conveyed sand storage silo/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
Pneumatically conveyed sand storage silo/ PM	BH	326 IAC 2-2	-	-	N [3]	-
Pneumatically conveyed sand storage silo/ PM10	BH	326 IAC 2-2	<100	-	N [2]	-
Pneumatically conveyed sand storage silo/ PM2.5	BH	No	-	-	N [1]	-
Silo #1/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
Silo #1/ PM	BH	No	-	-	N [1]	-
Silo #1/ PM10	BH	No	-	-	N [1]	-
Silo #1/ PM2.5	BH	No	-	-	N [1]	-
Silo #2/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
Silo #2/ PM	BH	No	-	-	N [1]	-
Silo #2/ PM10	BH	No	-	-	N [1]	-

Emission Unit/Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Silo #2/ PM2.5	BH	No	-	-	N [1]	-
Cold box sand mixer/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
Cold box sand mixer/ PM	BH	No	-	-	N [1]	-
Cold box sand mixer/ PM10	BH	No	-	-	N [1]	-
Cold box sand mixer/ PM2.5	BH	No	-	-	N [1]	-
Cold box core machine/ VOC	AB	No	-	-	N [1]	-
Cold box core machine/ Single HAP	AB	NESHAP ZZZZZ	-	-	N [4]	-
Cold box core machine/ Total HAPs	AB	NESHAP ZZZZZ	-	-	N [4]	-
Cold box sand hopper and elevator/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
Cold box sand hopper and elevator/ PM	BH	No	-	-	N [1]	-
Cold box sand hopper and elevator/ PM10	BH	No	-	-	N [1]	-
Cold box sand hopper and elevator/ PM2.5	BH	No	-	-	N [1]	-
No bake/pepset sand mixer and hopper/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
No bake/pepset sand mixer and hopper/ PM	BH	326 IAC 2-2	-	-	N [3]	-
No bake/pepset sand mixer and hopper/ PM10	BH	No	-	-	N [1]	-
No bake/pepset sand mixer and hopper/ PM2.5	BH	No	-	-	N [1]	-
A-Line bond silo/PM*	BV	326 IAC 6-3-2	>100	<100	Y	N
A-Line bond silo/PM	BV	326 IAC 2-2	-	-	N [3]	-
A-Line bond silo/PM10	BV	326 IAC 2-2	>100	<100	Y	N
A-Line bond silo/PM2.5	BV	No	-	-	N [1]	-
B-Line sand silo, B-Line bond silo, B-Line muller/ PM*	BH	326 IAC 6-3-2	>100	<100	Y	N
B-Line sand silo, B-Line bond silo, B-Line muller/ PM	BH	326 IAC 2-2	-	-	N [3]	-
B-Line sand silo, B-Line bond silo, B-Line muller/ PM10	BH	326 IAC 2-2	>100	<100	Y	N
B-Line sand silo, B-Line bond silo, B-Line muller/ PM2.5	BH	No	-	-	N [1]	-
B-Line shakeout/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
B-Line shakeout/ PM	BH	326 IAC 2-2	-	-	N [3]	-
B-Line shakeout/ PM10	BH	326 IAC 2-2	<100	-	N [2]	-
B-Line shakeout/ PM2.5	BH	No	-	-	N [1]	-
High speed continuous sand mixer and hopper/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
High speed continuous sand mixer and hopper/ PM	BH	326 IAC 2-2	-	-	N [3]	-
High speed continuous sand mixer and hopper/ PM10	BH	326 IAC 2-2	<100	-	N [2]	-
High speed continuous sand mixer and hopper/ PM2.5	BH	No	-	-	N [1]	-
Floor knockout station/ PM*	BH	326 IAC 6-3-2	>100	<100	Y	N
Floor knockout station/ PM	BH	326 IAC 2-2	-	-	N [3]	-

Emission Unit/Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Floor knockout station/ PM10	BH	326 IAC 2-2	>100	<100	Y	N
Floor knockout station/ PM2.5	BH	No	-	-	N [1]	-
Wheelabrator shot blast/ PM*	BH	326 IAC 6-3-2	>100	<100	Y	N
Wheelabrator shot blast/ PM	BH	326 IAC 2-2	-	-	N [3]	-
Wheelabrator shot blast/ PM10	BH	326 IAC 2-2	>100	<100	Y	N
Wheelabrator shot blast/ PM2.5	BH	No	-	-	N [1]	-
Tumble shot blast/ PM*	BH	326 IAC 6-3-2	<100	-	N [2]	-
Tumble shot blast/ PM	BH	No	-	-	N [1]	-
Tumble shot blast/ PM10	BH	No	-	-	N [1]	-
Tumble shot blast/ PM2.5	BH	No	-	-	N [1]	-
Spray painting/ PM*	DF	326 IAC 6-3-2	<100	-	N [2]	-
Spray painting/ PM	DF	No	-	-	N [1]	-
Spray painting/ PM10	DF	No	-	-	N [1]	-
Spray painting/ PM2.5	DF	No	-	-	N [1]	-

Uncontrolled PTE (tpy) and controlled PTE (tpy) are evaluated against the Major Source Threshold for each pollutant. Major Source Threshold for criteria pollutants (PM10, PM2.5, SO2, NOX, VOC and CO) is 100 tpy, for a single HAP ten (10) tpy, and for total HAPs twenty-five (25) tpy.
Under the Part 70 Permit program (40 CFR 70), PM is not a regulated pollutant.

PM* For limitations under 326 IAC 6-3-2, 326 IAC 6.5, and 326 IAC 6.8, IDEM OAQ uses PM as a surrogate for the regulated air pollutant PM10. Therefore, uncontrolled PTE and controlled PTE reflect the emissions of the regulated air pollutant PM10.

N [1] There is no applicable emission limitation or standard. Therefore, based on this evaluation, the requirements of 40 CFR Part 64, CAM, are not applicable.

N [2] CAM does not apply for pollutant because the uncontrolled PTE of pollutant is less than the major source threshold.

N [3] Under 326 IAC 2-2, PM is not a surrogate for a regulated air pollutant. Therefore, CAM does not apply to these emission units for the 326 IAC 2-2 PM limitation.

N [4] The requirements of 40 CFR Part 64, CAM, are not applicable because it subject to a post November 15, 1990 NESHAP.

Controls: BH = Baghouse, AB = Afterburner, DC = Dust Collection System,

Emission units without air pollution controls are not subject to CAM. Therefore, they are not listed.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the following listed emission units for PM, and PM10.

(1) Rotary reclaimer
(2) A-Line bond silo
(3) B-Line sand silo, B-Line bond silo, and B-Line muller
(4) Floor knockout station
(5) Wheelabrator shot blast machine

In this renewal IDEM has made the following revisions:

(1) Clarified that the requirements of 40 CFR Part 64, CAM, are applicable to the A-Line bond silo, B-Line sand silo, and B-Line bond silo for PM and PM10. These emission units have applicable emission limitations and have potential to emit greater than major source threshold.

New Source Performance Standards (NSPS)

(a) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, are not included in the permit for the Office boiler and the Town hall boiler, both constructed after June 9, 1989, because they each

have maximum heat input capacity less than 10 MMBtu per hour. The boilers were constructed in 2013.

(b) The requirements of the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII, are not included in the permit for the emergency generators G1-G6, because:

(i) Emergency generators, G1-G4, and G6, are spark ignition internal combustion engines.
(ii) Emergency generator, G5, was constructed prior to July 11, 2005. G5 was constructed in 1998.

(c) The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ, are not included in the permit for the emergency generators G1, G2, G4, and G5, because:

(i) Emergency generators, G1, G2, and G4, are spark ignition internal combustion engines that commenced construction prior to June 12, 2006. G1, G2, and G4 were constructed in 2006, 1999, and 1970, respectively.
(ii) Emergency generator, G5 is a compression ignition internal combustion engine.

(d) The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ, are included in the permit for the emergency generators G3 and G6, because they are spark-ignition internal combustion engine that were constructed after June 12, 2006. G3 and G6 were constructed in 2009 and 2016, respectively.

G3 and G6 are subject to the following portions of Subpart JJJJ:

(i) 40 CFR 60.4230(a)(4)(iv) and (c)
(ii) 40 CFR 60.4233(d)
(iii) 40 CFR 60.4234
(iv) 40 CFR 60.4236(c)
(v) 40 CFR 60.4237
(vi) 40 CFR 60.4243(b),(d), and (e)
(vii) 40 CFR 60.4245(a) and (b)
(viii) 40 CFR 60.4246
(ix) 40 CFR 60.4248
(x) Tables 1 and 3

This is an existing applicable requirement and no change is being made in this renewal.

(f) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

(g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning, 40 CFR 63, Subpart T are not included in the permit for the parts washers, because they do not use any solvent containing the compounds listed in 40 CFR 63.460(a).

(h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ are included in the permit for the emergency generators, G1-G6, because

(1) Emergency generators, G1, G2, G4, and G5 are existing stationary RICE (commenced construction or reconstruction of the stationary RICE before June 12, 2006) located at an area source of HAP emissions.

G1, G2, G4, and G5 are subject to the following portions of Subpart ZZZZ:

(i) 40 CFR 63.6580
(ii) 40 CFR 63.6585(a), (c), and (d)
(iii) 40 CFR 63.6590(a)(1)(iii)
(iv) 40 CFR 63.6595(a)(1) and (c)
(v) 40 CFR 63.6603(a)
(vi) 40 CFR 63.6605
(vii) 40 CFR 63.6625(e)(3),(f),(h), and (j)
(viii) 40 CFR 63.6640(a),(b), (e) and (f)
(ix) 40 CFR 63.6645 (a)(5)
(x) 40 CFR 63.6655 (a)(4), (d), (e) and (f)
(xi) 40 CFR 63.6660
(xii) 40 CFR 63.6665
(xiii) 40 CFR 63.6670
(xiv) 40 CFR 63.6675
(xv) Tables 2d, 6 and 8

(2) Emergency generators, G3 and G6, are new stationary RICE (commenced construction or reconstruction of the stationary RICE on or after June 12, 2006) located at an area source of HAP emissions.

G3 and G6, are subject to the following portions of Subpart ZZZZ:

(i) 40 CFR 63.6580
(ii) 40 CFR 63.6585(a), (c), and (d)
(iii) 40 CFR 63.6590(a)(2)(iii)
(iv) 40 CFR 63.6590(c)(1)
(v) 40 CFR 63.6595(a)(7)
(vi) 40 CFR 63.6665
(vii) 40 CFR 63.6670
(viii) 40 CFR 63.6675

This is an existing applicable requirement and no change is being made in this renewal.

(i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries, 40 CFR 63, Subpart EEEEE, are not included in the permit because this source is not a major source of HAPs. The source has accepted federally enforceable limits such that the requirements of 40 CFR 63, Subpart EEEEE, are not applicable.

(j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries Area Sources, 40 CFR 63, Subpart ZZZZZ, are included in the permit because this source is an iron foundry that is located at an area source of HAP emissions. The following emission units are subject to 40 CFR 63, ZZZZZ:

(1) Furnace charge handling system
(2) Electric induction furnaces, EIF1, EIF2, EIF3, and EIF4.
(3) Cold box core making operation
(4) No bake/pepset core making operation

The above mentioned emission units are subject to the following portions of Subpart ZZZZZ:

(i) 40 CFR 63.10880(a), (b)(1), (f)
(ii) 40 CFR 63.10881(a), (d)(2)
(iii) 40 CFR 63.10885(a)(1), (b)(4)
(iv) 40 CFR 63.10886
(v) 40 CFR 63.10899(a), (b)(1), (4) through (6),
(vi) 40 CFR 63.10905
(vii) 40 CFR 63.10906

In this renewal, IDEM has revised the applicable requirements because the source is now categorized as a small foundry.

(k) The requirements of National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart are not included in the permit for the Office boiler and the Town hall boiler, because each boiler burns only natural gas.

(l) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit renewal.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
This source was already major under 326 IAC 2-2 (PSD) before August 7, 1977, because it is one of the 28 listed source categories (secondary metal production) and at least one regulated pollutant is emitted at a rate greater than 100 tons per year.

(1) Prior to 1977
The following units were constructed prior to 1977:
(a) Electric holding furnace
(b) Furnace charge handling system
(c) Silo#1 and Silo#2
(d) Enclosed core and mold sand hopper, elevator and conveyor
(e) Cold box core making operation
(f) Floor pouring, cooling and shakeout
(g) Floor knockout station
(h) Tumble shot blast machine

(2) 1979 modification
The no bake/pepset core making operation, constructed in 1979, has potential to emit PM greater than 25 tons per year.

Pursuant to SPM 091-20949-00020 issued on April 19, 2007, revised by Operating Permit T091-24543-00020, issued on November 24, 2008, and in order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 1979 modification, the Permittee shall comply with the following:

(a) The PM emissions after control from the no bake/pepset sand mixer of the no bake/pepset core making operation shall not exceed 1.9 pounds per hour.

(b) The PM emissions after control from the no bake/pepset line sand hopper of the no bake/pepset core making operation shall not exceed 1.9 pounds per hour.

Compliance with these limits shall limit the PM emissions to less than 25 tons per twelve (12) consecutive month period, and render the requirements of 326 IAC 2-2 (PSD) not applicable to the 1979 modification.

These are existing applicable requirements. In this renewal, IDEM has revised the language to include "of the no bake/pepset core making operation" to provide more clarity.

(3) 1982 modification
The paint spray booth, constructed in 1982, has potential emissions less than the significant threshold. Therefore, the requirements of 326 IAC 2-2 (PSD) did not apply to this modification.

(4) 1984 modification
The A-Line bond silo, constructed in 1984, has potential to emit PM and PM10 greater than 25 and 15 tons per year, respectively.

Pursuant to SPM 091-20949-00020 issued on April 19, 2007, revised by Operating Permit T091-32850-00020, issued on October 23, 2013, and in order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 1984 modification, the Permittee shall comply with the following:

(a) The total throughput of bond to the A-Line bond silo shall not exceed 10,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM emissions before control from the A-Line bond silo shall not exceed 3.60 pound per ton of bond throughput.

(c) The PM10 emissions before control from the A-Line bond silo shall not exceed 0.54 pounds per ton of bond throughput.

Compliance with these limits shall limit PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 (PSD) not applicable to the 1984 modification.

These are existing applicable requirements and no change is being made in this renewal.

(5) 1986-1987 modification
The B-Line molding operation, constructed in a twelve month period from 1986 to 1987, has potential to emit greater than PSD significant thresholds.

In order to render 326 IAC 2-2 (PSD) and 326 IAC 8-1-6 not applicable, the Permittee shall comply with the following:

<u>B-Line pouring, B-Line cooling, and B-Line shakeout; PM and PM10</u>

(a) The total throughput of metal to the following operations that were constructed in a twelve month period from 1986 to 1987:

(i) B-Line pouring,
(ii) B-Line cooling, and
(iii) B-Line shakeout

shall not exceed 31,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The PM emissions before control from the following:

(i) B-Line pouring and
(ii) B-Line cooling

shall not exceed 0.27 pound per ton of metal throughput.

(c) The PM10 emissions before control from the following:

(i) B-Line pouring and
(ii) B-Line cooling

shall not exceed 0.27 pound per ton of metal throughput.

(d) The PM emissions after control from the B-Line shakeout shall not exceed 0.10 pound per ton of metal throughput.

(e) The PM10 emissions after control from the B-Line shakeout shall not exceed 0.10 pound per ton of metal throughput.

B-Line muller, B-Line sand silo, and B-Line bond silo: PM and PM10

(f) The total throughput of sand to the following:

(i) B-Line muller and
(ii) B-Line sand silo

shall not exceed 130,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(g) The total PM emissions after control from the following:

(i) B-Line muller and
(ii) B-Line sand silo

shall not exceed 0.25 pound per ton of sand throughput.

(h) The total PM10 emissions after control from the following:

(i) B-Line muller and
(ii) B-Line sand silo shall not exceed 0.13 pound per ton of sand throughput.

(i) The total throughput of bond to the B-Line bond silo shall not exceed 10,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(j) The total PM emissions before control from B-Line bond silo shall not exceed 0.25 pound per ton of bond throughput.

(k) The total PM10 emissions before control from B-Line bond silo shall not exceed 0.13 pound per ton of bond throughput.

Compliance with these limits shall limit the PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 (PSD) not applicable to the 1986 -1987 modification.

B-Line pouring, cooling, shakeout: CO and VOC

(l) The total CO emissions from the following:

(i) B-Line pouring,
(ii) B-Line cooling, and
(iii) B-Line shakeout

shall not exceed 6.0 pounds per ton of metal throughput.

Compliance with the metal throughput limit shall limit the CO emissions to less than 100 tons per twelve (12) consecutive month period and render 326 IAC 2-2 (PSD) not applicable to the 1986 and 1987 modification.

(m) The VOC emissions from the B-Line pouring operation shall not exceed 0.14 pounds of VOC per ton of metal charged.

(n) The VOC emissions from the B-Line shakeout shall not exceed 1.2 pounds of VOC per ton of metal charged.

Compliance with these limits shall limit the potential VOC emissions to less than 40 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable to the 1986 -1987 modification.

Compliance with these limits also renders 326 IAC-8-1-6 not applicable.

These are existing applicable requirements and no change is being made in this renewal.

(6) 1990 modification
The Wheelabrator shot blast machine, constructed in 1990, has potential to emit PM and PM10 greater than 25 and 15 tons per year, respectively.

In order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 1990 modification, the Permittee shall comply with the following:

(a) The throughput of metal to the Wheelabrator shot blast machine shall not exceed 44,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The total PM emissions after control from the Wheelabrator shot blast machine shall not exceed 0.7 pound per ton of metal throughput.

(c) The total PM10 emissions after control from the Wheelabrator shot blast machine shall not exceed 0.42 pound per ton of metal throughput.

Compliance with these limits shall limit the PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively and render 326 IAC 2-2 (PSD) not applicable to the 1990 modification.

These are existing applicable requirements and no change is being made in this renewal.

(7) 1991 modification
The electric induction furnaces, EIF1-EIF4, constructed in 1991, and the furnace charge handling system, constructed in 1977, and modified in 1991, have potential to emit PM and PM10 greater than 25 and 15 tons per year, respectively.

In order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 1991 modification, the Permittee shall comply with the following:

<u>Metal throughput</u>
(a) The throughput of charge materials (metal and additives) to following:

(i) Four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) and
(ii) Furnace charge handling system

shall not exceed 8,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

PM

(b) The PM emissions after control from melting and charging of the four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) shall not exceed 0.26 pound per ton of metal throughput.

(c) The PM emissions not captured and not controlled from melting and charging of the four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) shall not exceed 3.45 pound per ton of metal throughput.

PM10

(d) The PM10 emissions after control from melting and charging of the four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) shall not exceed 0.26 pound per ton of metal throughput.

(e) The PM10 emissions not captured and not controlled from melting and charging of the four (4) electric induction furnaces (EIF1, EIF2, EIF3, and EIF4) shall not exceed 3.45 pound per ton of metal throughput.

Compliance with these limits shall limit the PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 (PSD) not applicable to the 1991 modification.

Compliance with these limits shall limit the PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 (PSD) not applicable to the 1991 modification.

In this renewal, IDEM has made the following changes as requested by the source:

(i) Revised the throughput limit from "44,000 tons" to "8,000 tons".
(ii) Revised the PM emissions limit from "3.07 pound per ton" to "0.26 pound per ton".
(iii) Revised the PM10 emissions limit from "1.84 pound per ton" to "0.26 pound per ton".
(iv) Added PM and PM10 emissions limits for uncontrolled and uncaptured emissions.

The source requested the above changes based on October 15, 2015, stack test.

(8) 2001 modification

The indoor scrap handling operation, the pneumatically conveyed raw sand storage silo, and the high speed continuous sand mixer and associated sand hopper, constructed in 2001, have potential to emit greater than the PSD significant threshold.

In order to render the requirements 326 IAC 2-2 (PSD) not applicable to the 2001 modification, the Permittee shall comply with the following:

High speed continuous sand mixer and its associated sand hopper; VOC

Resin:

(a) The resin usage for the high speed continuous sand mixer (Mixer) shall not exceed 471,789 pounds of resin per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The VOC emissions from the high speed continuous sand mixer (Mixer) shall not exceed 0.05 pound per pound of resin.

Catalyst

(c) The catalyst usage for the high speed continuous sand mixer (Mixer) shall not exceed 26,211 pounds of VOC catalyst per twelve (12) consecutive month period, with compliance determined at the end of each month.

(d) The VOC emissions from the high speed continuous sand mixer (Mixer) shall not exceed 1.0 pound per pound of catalyst.

Compliance with these limits shall limit the VOC emissions to less than 40 tons per twelve (12) consecutive month period, and render 326 IAC 2-2 (PSD) not applicable to the 2001 modification.

Compliance with these limits also renders 326 IAC-8-1-6 not applicable.

These are existing applicable requirements and no change is being made in this renewal.

<u>High speed continuous sand mixer and its associated sand hopper, pneumatically conveyed raw sand storage silo, enclosed conveyor system transporting spent sand to spent sand storage silo, and indoor scrap handling; PM and PM10</u>

(e) The throughput of metal to the indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor), shall not exceed 44,000 tons of metal per twelve (12) consecutive month period, with compliance determined at the end of each month.

(f) The total throughput of sand to the following:

(i) High speed continuous sand mixer and its associated sand hopper (Section D.6),
(ii) Pneumatically conveyed raw sand storage silo and
(iii) Spent sand storage silo,

shall not exceed 42,574 tons of sand per twelve (12) consecutive month period, with compliance determined at the end of each month.

(g) The total PM emissions after control from the following:

(i) Indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor),
(ii) Pneumatically conveyed raw sand storage silo
(iii) Enclosed conveyor system transporting spent sand to spent sand storage silo

shall not exceed 0.5 pound per ton of throughput.

(h) The total PM10 emissions after control from the following:

(i) Indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor),
(ii) Pneumatically conveyed raw sand storage silo
(iii) Enclosed conveyor system transporting spent sand to spent sand storage silo

shall not exceed 0.28 pound per ton of throughput.

(i) The total PM emissions after control from the high speed continuous sand mixer (Mixer) and its associated sand hopper shall not exceed 0.01 pound per ton of sand throughput.

(j) The total PM10 emissions after control from the high speed continuous sand mixer (Mixer) and its associated sand hopper shall not exceed 0.01 pound per ton of sand throughput.

Compliance with these limits ((e)-(j)), shall limit the PM and PM10 emissions to less than 25 and 15 tons per twelve (12) consecutive month period, respectively and render 326 IAC 2-2 (PSD) not applicable to the 2001 modification.

In this renewal, IDEM has combined the limit for PM and PM10 emissions from the indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor) and pneumatically conveyed raw sand storage silo and enclosed conveyor system transporting spent sand to spent sand storage silo, upon the request of the source.

(9) 2007 modification
The natural gas-fired pre-heater, constructed in 2007, has potential emissions less than the significant threshold. Therefore, the requirements of 326 IAC 2-2 (PSD) do not apply to this modification.

(10) 2013 modification
The graphite wash operation, the top bond operation, the three (3) parts washers, and the two (2) boilers, constructed in 2013, have potential emissions less than the significant threshold. Therefore, the requirements of 326 IAC 2-2 (PSD) do not apply to this modification.

326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting) because it is located in LaPorte County and its emissions of VOC and NOx are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(1), annual reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3 and every year thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 2-7-6(5) (Annual Compliance Certification)
The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certification that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

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

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

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

326 IAC 6.5 PM Limitations Except Lake County
This source is not subject to 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.

326 IAC 6.8 PM Limitations for Lake County
This source is not subject to 326 IAC 6.5 because it is not located in Lake county.

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

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This source is not subject to the requirements of 326 IAC 6-5, because it does not have potential fugitive particulate emissions greater than 25 tons per year.

State Rule Applicability – Individual Facilities

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
(1) The source could only confirm that the following indirect heating facilities were constructed prior to 1998. Therefore, IDEM has assumed that the indirect heating facilities were constructed after September 21, 1983, and will be subject to 326 IAC 6-2-4.

Pursuant to 326 IAC 6-2-4, the PM emissions from the following indirect heating facilities shall not exceed pounds per MMBtu heat input as specified:

Emission Unit ID	Location	Capacity (MMBtu/hr)	Limit (lb PM/ MMBtu)
7	Auditorium AHU	0.11	0.38
12	RTU South Engineering	0.28	
13	RTU North Engineering	0.28	
14	RTU Old Drafting Area	0.12	
15	RTU Drafting Southwest	0.08	
16	RTU Drafting Southeast	0.08	
17	RTU Drafting Northwest	0.12	
18	RTU Drafting Northeast	0.12	
20	RTU Bathroom Next To Stairs	0.08	
22	RTU IT Area	0.12	
23	RTU South Offices Near Front Gate	0.09	
24	RTU School	0.12	
25	AHU Plant Manager	0.04	
28	RTU Maintenance Offices East	0.06	
29	RTU QA Lab Office/Machine	0.12	
32	RTU Melt Offices/Controls	0.20	
35	RTU Trucking Offices	0.12	
36	RTU Machine Shop Lockeroom	0.20	
37	RTU QA Offices	0.14	
38	RTU Cafeteria	0.30	
40	Filter Rack QA Lab	0.11	
43	Engineering MAU	0.97	

Emission Unit ID	Location	Capacity (MMBtu/hr)	Limit (lb PM/ MMBtu)
44	Commercial Boiler Thermocycler West	0.40	
45	Commercial Boiler Thermocycler Middle	0.40	
46	Commercial Boiler Thermocycler East	0.40	
47	Storeroom Unit Heater #1	0.15	
48	Storeroom Unit Heater #2	0.10	
49	Storeroom Unit Heater #3	0.20	
56	QA Offices Unit Heater	0.12	
51	Cleaning Building Unit Heater #1	0.18	
52	Cleaning Building Unit Heater #2	0.18	
3025	Compressor Room Rapid	0.75	
1	Roof Next Cooling Tower Southeast	3.58	
2	South V Roof	3.58	
3	Middle V Roof	3.58	
4	North V Roof	3.58	
5	Roof Over Compressor/Air Dryer Rooms	2.75	
6	Roof Over Cleaning Room South End	3.58	
7	Roof Machine Shop South Side	3.58	
8	Roof Machine Shop North Side	3.58	
9	Indoors Southeast Core Room	3.50	
10	Indoors Southwest Core Room	2.76	
11	On Ground Outside West Side	1.65	
12	On Ground Outside Near Sand Silo	3.58	
15	Roof West Side Above A Line	3.03	
3144	Former Assembly Warehouse	1.65	

This is a new requirement that has been added in this renewal.

(2) Pursuant to 326 IAC 6-2-4, the PM emissions from the Office boiler and the Town hall boiler shall each not exceed 0.37 pound per MMBtu heat input, because they are indirect heating facilities that were constructed after September 21, 1983.

In this renewal, IDEM has revised the PM emissions limits for the Office boiler and the Town hall boiler from "0.6 pound per MMBtu" to "0.37 pound per MMBtu" based on the addition of other indirect heating facilities that were constructed before these two boilers.

The lb PM per MMBtu limit for these emission units was established using the following equation:

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

Where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu).

Q = Total source maximum operating capacity rating in 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.

326 IAC 6-3-2 (Particulate Emisison Limitations for Manufacturing Processs)

(1) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the facilities listed below shall not exceed as specified when operating at the respective process weight rate:

Process Description	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)	Equation used
EIF1	5.00	12.05	(a)
EIF2	5.00	12.05	(a)
EIF3	5.00	12.05	(a)
EIF4	5.00	12.05	(a)
Furnace charge handling system	20.00	30.51	(a)
Metal scrap crusher	15.00	25.16	(a)
Rotary reclaimer	25.00	35.43	(a)
Sand and metal conveyor	25.00	35.43	(a)
Enclosed conveyor system	10.00	19.18	(a)
Pneumatically conveyed sand storage silo	10.00	19.18	(a)
Silo #1	16.80	27.15	(a)
Silo #2	16.80	27.15	(a)
Core and mold sand hopper, elevator, and conveyor	16.80	27.15	(a)
Cold box sand mixer	5.80	13.31	(a)
Cold box core machine	5.80	13.31	(a)
Cold box line sand hopper and elevator	5.80	13.31	(a)
No bake/pepset sand mixer	6.00	13.62	(a)
No bake/pepset line sand hopper	6.00	13.62	(a)
A-Line bond silo	200.00	58.51	(b)
B-Line sand silo	128.00	53.79	(b)
B-Line bond silo			
B-Line muller			
B-Line pouring	113.00	52.51	(b)
B-Line cooling	113.00	52.51	(b)
B-Line shakeout	113.00	52.51	(b)
High speed continuous sand mixer and associated sand hopper	42.00	42.97	(b)
Floor pouring	35.00	41.32	(b)
Floor cooling	35.00	41.32	(b)

Process Description	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)	Equation used
Floor shakeout	35.00	41.32	(b)
Floor knockout station	15.00	25.16	(a)
Wheelabrator shot blast machine	31.00	40.24	(b)
Tumble shot blast machine	1.75	5.97	(a)

The pound per hour limitation was calculated with 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:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = 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:

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

These are existing applicable requirements. However, in this renewal, IDEM has made the following changes:

(1) Corrected the process weight rate and allowable emissions for the following:
- (i) Core and mold sand hopper, elevator, and conveyor
- (ii) B-Line sand silo
- (iii) B-Line bond silo
- (iv) B-Line muller

(2) Added rule applicability for cold box core machine. This determination has been made in this renewal. However, potential to emit PM has not been calculated for this emission unit.

Based on TSD App A, a control device is required for the following emission units/ processes in order to comply with this limit:

Rotary reclaimer
Sand and metal conveyor
Enclosed conveyor system
Pneumatically conveyed sand storage silo
Silo #1
Silo #2
Core and mold sand hopper, elevator, and conveyor
Cold box sand mixer
Cold box sand hopper and elevator
No bake/pepset sand mixer
No bake/pepset sand hopper
A-Line bond silo
B-Line sand silo
B-Line bond silo
B-Line muller
High speed continuous sand mixer and associated hopper
Floor knockout station

Wheelabrator shot blast machine
Tumble shot blast machine

These are existing applicable requirements and no change is being made in this renewal.

(2) Pursuant to 326 IAC 6-3-2(d), the paint spray booth, identified as Spray painting, shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the permittee shall operate the control device in accordance with the manufacturer's specifications.

This is an existing applicable requirement and no change is being made in this renewal.

(3) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emission rate from the grinding and machining operations with a process weight rate less than 100 pounds per hour shall not exceed 0.551pounds per hour.

This is an existing applicable requirement and no change is being made in this renewal.

(4) Pursuant to 326 IAC 6-3-2 the allowable PM emission rate from the facilities listed below shall not exceed the pounds per hour limitations as calculated with the following formula:

Brazing equipment, cutting torches, soldering equipment, and welding equipment
Machining operation

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:

$E = 4.10\ P^{0.67}$ Where: E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

These are existing applicable requirements and no change is being made in this renewal.

(5) Pursuant to 326 IAC 6-3-1(b)(14), the requirements of 326 IAC 6-3-2 do not apply to the following emission units, because they have potential emissions less than 0.551 pound per hour.

Graphite wash operation
Top bond operation

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

(1) The following listed units are not subject to the requirements of 326 IAC 8-1-6, because they were constructed prior to January 1, 1980.

Cold box core machine
Floor pouring
Floor shakeout
Floor knockout station

(2) The following listed units are not subject to the requirements of 326 IAC 8-1-6, because they each have potential to emit VOC less than 25 tons per year.

B-Line pouring
Spray painting
Graphite wash operation
Top bond operation
Parts washers

(3) The following listed units are subject to the requirements of 326 IAC 8-1-6, because they were each constructed after Januray 1, 1980, and have potential to emit VOC greater than 25 tons per year.

B-line shake out
High speed continuous sand mixer and hopper

B-Line shakeout
The Permittee has chosen to extend 326 IAC 2-2 avoidance limit for the 1986 -1987 modification to avoid 326 IAC 8-1-6 for the B-Line shakeout.

In order to render the requirements of 326 IAC 8-1-6 not applicable, the Permittee shall comply with the following:

(a) The total throughput of metal to the B-Line shakeout operations, shall not exceed 31,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The VOC emissions from the B-Line Shakeout operation shall not exceed 1.2 pounds of VOC per ton of metal charged.

Compliance with these limits shall limit the potential VOC emissions to less than 25 tons per twelve (12) consecutive month period, and render 326 IAC 8-1-6 not applicable to the B-Line shakeout.

These are existing applicable requirements and no change is being made in this renewal.

High speed continuous sand mixer and hopper
The Permittee has chosen to extend 326 IAC 2-2 avoidance limit for the 2001 modification to avoid 326 IAC 8-1-6 for the high speed continuous sand mixer and hopper.

In order to render the requirements of 326 IAC 8-1-6 not applicable, the Permittee shall comply with the following:

Resin:
(a) The resin usage for the high speed continuous sand mixer (Mixer) shall not exceed 471,789 pounds of resin per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The VOC emissions from the high speed continuous sand mixer (Mixer) shall not exceed 0.05 pound per pound of resin.

Catalyst
(c) The catalyst usage for the high speed continuous sand mixer (Mixer) shall not exceed 26,211 pounds of VOC catalyst per twelve (12) consecutive month period, with compliance determined at the end of each month.

(d) The VOC emissions from the high speed continuous sand mixer (Mixer) shall not exceed 1.0 pound per pound of catalyst.

Compliance with these limits shall limit the VOC emissions to less than 25 tons per twelve (12) consecutive month period, and render 326 IAC 8-1-6 not applicable to the high speed continuous sand mixer and hopper.

These are existing applicable requirements and no change is being made in this renewal.

326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations)
This rule applies to facilities existing as of July 1, 1990, located in Clark, Elkhart, Floyd, Lake, Marion, Porter, or St. Joseph counties and that have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls, and facilities that commenced construction after July 1, 1990, located in any county that have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls.

The paint spray booth, identified as Spray painting, was constructed prior to July 1, 1990, and has potential emissions greater than 15 pounds of VOC per day, and the actual emissions are not limited to less than 15 pounds per day. However, it is not located in any of the above listed counties. Therefore, the requirements of 326 IAC 8-2-9 do not apply.

326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements)
The three (3) parts washers are subject to the requirements of 326 IAC 8-3-2 because they were constructed after January 1, 1980.

Pursuant to 326 IAC 8-3-2(a), the owner or operator of the cold cleaner degreaser 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 subdivisions (3), (4), (6), and (7).
(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.

The three (3) parts washers are subject to the requirements of 326 IAC 8-3-2(b) because they are not equipped with a remote solvent reservoir.

Pursuant to 326 IAC 8-3-2(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 clauses (A) through (D) 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.

These are existing applicable requirements and no change is being made in this renewal.

326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers)
326 IAC 8-3-8 applies to any person who sells, offers for sale, uses, or manufactures solvent for use in cold cleaner degreasers before January 1, 2015, in Clark, Floyd, lake or Porter Counties or on and after January 1, 2015, anywhere in the state. Therefore, the degreasing operations are subject to the requirements of 326 IAC 8-3-8.

(a) Material requirements are as follows:

(1) No person shall 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) degree Celsius (sixty-eight (68) degrees Fahrenheit).

(b) Record keeping requirements are as follows:

(1) All persons subject to the requirements of (a)(1) shall maintain each of the following records for each purchase:

(A) The name and address of the solvent supplier.

(B) The date of purchase (or invoice/bill date 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).

(c) All records required by subsection (b) shall be:

(2) Retained on-site or accessible electronically from the site for the most recent three (3) year period; and

(3) Reasonably accessible for an additional two (2) year period.

This is a new requirement that has been added in this permit renewal.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to assure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would

serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

(a) The compliance monitoring requirements applicable to this source are as follows:

Emission Unit	Control	Parameter	Frequency
(1) Electric induction furnaces (EIF1-EIF4)	Dust collector 39-DC-4	Water Pressure Drop	Daily
(1) Furnace charge handling system			
(1) Indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor)	Baghouse 39-DC-5	Water Pressure Drop	Daily
(1) Pneumatically conveyed raw sand storage silo			
(2) Silo#1 and Silo#2	Baghouse 36-1-DC-7	Water Pressure Drop	Daily
(1) Cold box sand mixer, and cold box line sand hopper and elevator		Water Pressure Drop	Daily
(1) No bake/pepset core making operation			
(1) B-Line sand silo, B-Line muller and B-line shakeout			
(2) B-Line bond silo	Bin Vent	Visible emissions	Daily
(1) B-Line pouring	No control (Stack 36-E-5)	Visible Emissions	Daily
(1) B-Line cooling	No control (Stacks 36-E-6, 36-E-6(2), 36-E-6(3), and 36-E-6(4))	Visible Emissions	Daily
(2) A-Line bond silo	Bin Vent	Visible emissions	Daily
(1) High speed continuous sand mixer and associated sand hopper	Baghouse 30-DC-6	Water Pressure Drop	Daily
(1) Floor knockout station	Baghouse 8-DC-2	Water Pressure Drop	Daily
(2) Tumble shot blast machine			
(1) Wheelabrator shot blast machine	Baghouse 36-DC-8	Water Pressure Drop	Daily
(2) Paint booth (spray painting)	Dry Filters	Filter inspection	Daily
		Presence of overspray	Weekly
		Stack exhaust inspection	Monthly

(1) These monitoring conditions are necessary because the control devices for these emission units must work properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-2 (PSD) avoidance limits.

(2) These monitoring conditions are necessary because these control devices must work properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

In this renewal, IDEM has made the following changes:

(1) Added compliance monitoring for Baghouse 36-1-DC-7, controlling emissions from Silo#1 and Silo#2. This is required to demonstrate compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

(2) Added compliance monitoring for bin vents controlling emissions from A-Line bond silo and B-Line bond silo. This is required to demonstrate compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 40 CFR 64 (CAM).

(3) Removed visible emissions observations for the below listed emission units because these emission units have parametric monitoring as well.

Emission Unit	Control
Electric induction furnaces (EIF1-EIF4)	Dust collector 39-DC-4 (1)
Furnace charge handling system	
Indoor scrap handling operation (metal scrap crusher, rotary reclaimer, and sand and metal conveyor)	Baghouse 39-DC-5
Pneumatically conveyed raw sand storage silo	
Cold box sand mixer, and cold box line sand hopper and elevator	Baghouse 36-1-DC-7
No bake/pepset core making operation	
B-Line sand silo, B-Line muller and B-line shakeout	
High speed continuous mixer and associated hopper	Baghouse 30-DC-6
Floor knockout station	Baghouse 8-DC-2
Tumble shot blast machine	
Wheelabrator shot blast machine	Baghouse 36-DC-8

(4) Removed visible emissions observations for the below listed emission units because these emission units do not have a control device.

B-Line pouring
B-Line cooling

(5) Removed compliance monitoring for the natural gas fired pre-heater because the emissions are from natural gas combustion only. The pre-heater and the furnace charge handling system are part of the same process. IDEM has continued to require compliance monitoring for the furnace charge handling system.

(b) The testing requirements applicable to this to this source are as follows:

Emission Unit	Control Device	Pollutant	Timeframe for Testing	Frequency of Testing
Electric induction furnaces (EIF1-EIF4) and Furnace charge handling system	Dust collector 39-DC-4	PM and PM10*	Five (5) years from the most recent valid testing	Every five (5) years
Indoor scrap handling operation and Pneumatically conveyed raw sand storage silo	Baghouse 39-DC-5	PM and PM10*	Five (5) years from the most recent valid testing	Every five (5) years

Emission Unit	Control Device	Pollutant	Timeframe for Testing	Frequency of Testing
No bake/pepset core making operation	Baghouse 36-1-DC-7	PM	Five (5) years from the most recent valid testing	Every five (5) years
High speed continuous mixer and associated hopper	Baghouse 30-DC-6	PM and PM10*	Five (5) years from the most recent valid testing	Every five (5) years
Floor knockout station	Baghouse 8-DC-2	PM and PM10*	Five (5) years from the most recent valid testing	Every five (5) years
Wheelabrator shot blast machine	Baghouse 36-DC-8	PM and PM10*	Five (5) years from the most recent valid testing	Every five (5) years

*PM10 filterable and condensable PM

(1) These are existing testing requirements for the above listed emission units and no change is being made in this renewal. IDEM, OAQ has determined that testing will be continued to be required for these emission units to assure compliance with 326 IAC 2-2 (PSD) avoidance limits.

(2) NESHAP for Iron and Steel Foundries Area Sources, 40 CFR 43.10898 contains metal HAPs testing applicable to the source.

(c) The compliance determination applicable to this to this source are as follows:

(a) Lead emissions

$T_L = \sum T_{Pb} = \sum(EF_{Pb} * M_{Pb} * 1 \text{ ton}/2000 \text{ lbs})$

Where:

T_L = Total lead emissions from the source (tons per twelve (12) consecutive month period)

T_{Pb} = Total lead emissions from operations with Pb emissions (tons per twelve (12) consecutive month period)

EF_{Pb} = Emission Factor (pound lead per ton of metal throughput to operation with Pb emissions)

M_{Pb} = Total metal throughput to operation with Pb emissions (tons per twelve (12) consecutive month period)

Operations with Pb emissions	Emission Factor, EF_{Pb} (lb Pb/ ton of throughput)
Electric induction furnaces (EIF1-EIF4)	0.00016992
Furnace charge handling	0.00231
Metal scrap crusher	0.00019
Rotary reclaimer	0.00014
B-Line pouring	0.01617
B-Line cooling	0.00539
B-Line shakeout	0.00256
Floor pouring	0.01617
Floor cooling	0.00539
Floor shakeout	0.01232
Floor knockout station	0.0256
Wheelabrator shot blast	0.00137

Tumble shot blast	0.0013
Insignificant activities and fugitive emissions	

(b) Manganese emissions

$T_M = \sum T_{Mn} = \sum (EF_{Mn} * M_{Mn} * 1 \text{ ton}/2000 \text{ lbs})$

Where:

T_M = Total manganese emissions from the source (tons per twelve (12) consecutive month period)

T_{Mn} = Total manganese emissions from operations with Mn emissions (tons per twelve (12) consecutive month period)

EF_{Mn} = Emission Factor (pound manganese per ton of metal throughput to operation with Mn emissions)

M_{Mn} = Total metal throughput to operation with Mn emissions (tons per twelve (12) consecutive month period)

Operations with Mn emissions	Emission Factor, EF_{Mn} (lb Mn/ ton of throughput)
Electric induction furnaces (EIF1-EIF4)	0.00436
Furnace charge handling	0.0186
Metal scrap crusher	0.0155
Rotary reclaimer	0.0011
B-Line pouring	0.1302
B-Line cooling	0.0434
B-Line shakeout	0.0206
Floor pouring	0.1302
Floor cooling	0.0434
Floor shakeout	0.0992
Floor knockout station	0.0206
Wheelabrator shot blast	0.0111
Tumble shot blast	0.0105
Insignificant activities and fugitive emissions	

(c) Benzene emissions

$T_B = \sum T_{Be} = \sum (EF_{Be} * M_{Be} * 1 \text{ ton}/2000 \text{ lbs})$

Where:

T_B = Total benzene emissions from the source (tons per twelve (12) consecutive month period)

T_{Be} = Total benzene emissions from operations with benzene emissions (tons per twelve (12) consecutive month period)

EF_{Be} = Emission Factor (pound benzene per pound of resin throughput to operation with benzene emissions)

M_{Be} = Total resin throughput to operation with benzene emissions (pounds per twelve (12) consecutive month period)

Operations with benzene emissions	Emission Factor, EF_{Be} (lb benzene /lb resin)
Cold box core making	0.00535
No bake/pepset core making	0.00535

Green sand molding operation for molds used in the B-Line Benzene emissions from BL = 0.043 tons per month
Insignificant activities and fugitive emissions

(d) Phenol emissions

$T_P = \sum T_{Ph} = \sum (EF_{Ph} * M_{Ph} * 1 \text{ ton}/2000 \text{ lbs})$

Where:

T_P = Total phenol emissions from the source (tons per twelve (12) consecutive month period)

T_{Ph}= Total phenol emissions from operations with phenol emissions (tons per twelve (12) consecutive month period)

EF_{Ph} = Emission Factor (pound phenol per pound of resin throughput to operation with phenol emissions)

M_{Ph} = Total resin throughput to operation with phenol emissions (pounds per twelve (12) consecutive month period)

Operations with Phenol emissions	Emission Factor, EF_{Ph} (lb phenol/ lb resin)
Cold box core making	0.0039
No bake/pepset core making	0.0039
Green sand molding operation for molds used in the B-Line Phenol emissions from BL = 0.043 tons per month	
Insignificant activities and fugitive emissions	

(e) Total HAPs emissions

$T_T = \sum T_{HAP} = \sum (EF_{HAP} * M_{HAP} * 1 \text{ ton}/2000 \text{ lbs})$

Where:

T_T = Total HAP emissions from the source (tons per twelve (12) consecutive month period)

T_{HAP} = Total HAP emissions from operations with HAP emissions (tons per twelve (12) consecutive month period)

EF_{HAP} = Emission Factor (pound HAP per ton of metal throughput to operation with HAP emissions / pound HAP per pound of resin throughput to operation with HAP emissions)

M_n = Total throughput to operation with HAP emissions (tons metal per twelve (12) consecutive month period/ pounds resin per twelve (12) consecutive month period)

Operations with HAP emissions	Emission Factor, EF_{HAP} (lb HAP/ ton of throughput)
Electric induction furnaces (EIF1-EIF4)	0.00495
Furnace charge handling	0.02273
Metal scrap crusher	0.01721
Rotary reclaimer	0.0013
B-Line pouring	0.1591
B-Line cooling	0.053

B-Line shakeout	0.0252
Floor pouring	0.1591
Floor cooling	0.053
Floor shakeout	0.12122
Floor knockout station	0.0252
Wheelabrator shot blast	0.0135
Tumble shot blast	0.0128
Operation	Emission Factor, EF_n (lb HAP/ lb resin)
Cold box core making	0.01236
No bake/pepset core making	0.01236
High speed continuous sand mixer: no bake/pepset part I resin	0.0032
High speed continuous sand mixer: no bake/pepset part II resin	0.002
High speed continuous sand mixer: no bake/pepset catalyst	0.0698
Green sand molding operation for molds used in the B-Line HAP emissions from BL = 0.35 tons per month	
Insignificant activities and fugitive emissions	

In this renewal, IDEM has consolidated existing equations in a tabular column.

Conclusion and Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on January 23, 2018. Additional information was received on November 09, 2018.

The operation of this stationary gray iron foundry shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T091-39531-00020.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Rithika Reddy at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-9694 or toll free at 1-800-451-6027 ask for Rithika Reddy or (317) 234-9694.

(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 Air Permits page on the Internet at: http://www.in.gov/idem/airquality/2356.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emission Calculations
Emissions Summary

Company Name: Weil Mc-Lain
Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Operating Permit: T091-39531-00020
Reviewer: Rithika Reddy

Unlimited Potential to Emit (tons/year)

Emission Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP	
EIF1	19.71	18.83	18.83	-	-	-	-	6.80	4.77	Pb
EIF2	19.71	18.83	18.83	-	-	-	-			
EIF3	19.71	18.83	18.83	-	-	-	-			
EIF4	19.71	18.83	18.83	-	-	-	-			
Charge handling system	52.56	31.54	31.54	-	-	-	-	1.99	1.63	Mn
Metal scrap crusher	32.85	3.29	3.29	-	-	-	-	1.13	1.02	Mn
Rotary reclaimer	210.24	147.17	147.17	-	-	-	-	7.96	6.52	Mn
Sand and metal conveyor	157.68	23.65	23.65	-	-	-	-	-	-	-
Enclosed conveyor system	157.68	23.65	23.65	-	-	-	-	-	-	-
Pneumatically conveyed sand storage silo	157.68	23.65	23.65	-	-	-	-	-	-	-
Silo#1 and Silo#2	529.80	79.47	79.47	-	-	-	-	-	-	-
Core and mold sand hopper, elevator, and conveyor	264.90	39.74	39.74	-	-	-	-	-	-	-
Cold box sand mixer	91.45	13.72	13.72	-	-	-	-	-	-	-
Cold box core machine	-	-	-	-	-	97.66	-	0.89	0.45	Napthalene
Cold box line sand hopper and elevator	91.45	13.72	13.72	-	-	-	-	-	-	-
No bake/pepset sand mixer and hopper	94.61	14.19	14.19	-	-	-	-	-	-	-
A-Line bond silo	3,153.60	473.04	473.04	-	-	-	-	-	-	-
B-Line sand silo	2,018.30	302.75	302.75	-	-	-	-	-	-	-
B-Line bond silo								-	-	-
B-Line muller								-	-	-
B-Line pouring	165.56	81.21	81.21	0.79	0.39	5.52	236.52	6.27	5.13	Mn
B-Line cooling	55.19	55.19	55.19	-	-	-	-	2.09	1.71	Mn
B-Line shakeout	126.14	88.30	88.30	-	-	47.30	-	4.78	3.91	Mn
High speed continuous sand mixer and sand hopper	662.26	99.34	99.34	-	-	699.05	-	-	-	-
Floor pouring	110.38	54.14	54.14	0.53	0.26	3.68	157.68	4.18	3.42	Mn
Floor cooling	36.79	36.79	36.79	-	-	-	-	1.39	1.14	Mn
Floor shakeout	84.10	58.87	58.87	-	-	31.54	-	3.19	2.61	Mn
Floor knockout station	210.24	147.17	147.17	-	-	78.84	-	7.96	6.52	Mn
Wheelabrator shotblast loading station	2.38	2.38	2.38	-	-	-	-	87.44	71.56	Mn
Wheelabrator shot blast	2,308.26	230.83	230.83	-	-	-	-			Mn
Tumble shot blast	130.31	13.03	13.03	-	-	-	-	4.94	4.04	Mn
Spray painting	2.97	2.97	2.97	-	-	10.48	-	-	-	-
Graphite wash operation	0.01	0.01	0.01	-	-	1.57	-	-	-	-
Top bond operation	0.34	0.34	0.34	-	-	0.79	-	-	-	-
Parts washers	-	-	-	-	-	3.50	-	0.04	0.03	Ester
Grinding operations	4.51	4.51	4.51	-	-	-	-	-	-	-
Machining operations	4.56	4.56	4.56	-	-	-	-	-	-	-
Natural gas combustion	0.65	2.59	2.59	0.20	34.10	1.88	28.64	0.64	0.61	Hexane
Emergency Generators	0.18	0.11	0.11	1.02	6.85	0.19	2.76	0.01	0.008	Formaldehyde
Unpaved roads	0.44	0.15	0.15	-	-	-	-	-	-	-
Total Emissions	**10,997**	**2,147**	**2,147**	**3**	**42**	**982**	**426**	**142**	**109**	**Mn**

Note:
The source has one holding furnace with a maximum molten metal storage capacity of 20 tons, with negligible emissions

Appendix A: Emission Calculations
Limited Emissions

Company Name: Weil Mc-Lain
Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Operating Permit: T091-39531-00020
Reviewer: Rithika Reddy

Limited Potential to Emit (tons/year)

Emission Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP	
EIF1	14.84	14.84	18.83	-	-	-	-	<25	<10	Any single HAP
EIF2			18.83	-	-	-	-			
EIF3			18.83	-	-	-	-			
EIF4			18.83	-	-	-	-			
Charge handling system			31.54	-	-	-	-			
Metal scrap crusher	11.00	6.16	3.29	-	-	-	-			
Rotary reclaimer			147.17	-	-	-	-			
Sand and metal conveyor			23.65	-	-	-	-			
Enclosed conveyor system	10.64	5.96	23.65	-	-	-	-			
Pneumatically conveyed sand storage silo			23.65	-	-	-	-			
Silo#1 and Silo#2	529.80	79.47	79.47	-	-	-	-			
Core and mold sand hopper, elevator, and conveyor	264.90	39.74	39.74	-	-	-	-			
Cold box sand mixer	91.45	13.72	13.72	-	-	-	-			
Cold box core machine	-	-	-	-	-	97.66	-			
Cold box sand hopper and elevator	91.45	13.72	13.72	-	-	-	-			
No bake/pepset sand mixer and hopper	16.64	14.19	14.19	-	-	-	-			
A-Line bond silo	18.00	2.70	473.04	-	-	-	-			
B-Line sand silo	16.25	8.45	302.75	-	-	-	-			
B-Line muller										
B-Line bond silo	1.25	0.65								
B-Line pouring	4.25	4.25	81.21	0.79	0.39	2.21	94.50			
B-Line cooling			55.19	-	-	-				
B-Line shakeout	1.58	1.58	88.30	-	-	18.90				
High speed continuous sand mixer and hopper	0.21	0.21	99.34	-	-	699.05	-			
Floor pouring	110.38	54.14	54.14	0.53	0.26	3.68	157.68			
Floor cooling	36.79	36.79	36.79	-	-	-	-			
Floor shakeout	84.10	58.87	58.87	-	-	31.54	-			
Floor knockout station	210.24	147.17	147.17	-	-	78.84	-			
Wheelabrator shotblast loading station	2.38	2.38	2.38	-	-	-	-			
Wheelabrator shotblast machine	15.40	9.24	230.83	-	-	-	-			
Tumble shotblast machine	130.31	13.03	13.03	-	-	-	-			
Spray painting	2.97	2.97	2.97	-	-	10.48	-			
Graphite wash operation	0.01	0.01	0.01	-	-	1.57	-			
Top bond operation	0.34	0.34	0.34	-	-	0.79	-			
Parts washers	-	-	-	-	-	3.50	-			
Grinding operations	4.51	4.51	4.51	-	-	-	-			
Machining operations	4.56	4.56	4.56	-	-	-	-			
Natural gas combustion	0.65	2.59	2.59	0.20	34.10	1.88	28.64			
Emergency Generators	0.18	0.11	0.11	1.02	6.85	0.19	2.76			
Unpaved roads	0.44	0.15	0.15	-	-	-	-			
Total Emissions	**1,676**	**542**	**2,147**	**3**	**42**	**950**	**284**	**<25**	**<10**	**Any single HAP**

Note:
The source has one holding furnace with a maximum molten metal storage capacity of 20 tons, with negligible emissions

Appendix A: Emission Calculations
PSD modification limits

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

Emission Unit	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	VOC	CO
1979 modification							
No bake/pepset sand mixer and hopper	16.64	-	-	-	-	-	-
Total	**16.64**	-	-	-	-	-	-
1984 modification							
A-Line bond silo	18.00	2.70	-	-	-	-	-
Total	**18.00**	**2.70**					
1986-1987 modification							
B-Line sand silo	16.25	8.45	-	-	-	-	-
B-Line muller							
B-Line bond silo	1.25	0.65					
B-Line pouring	4.25	4.25	-	-	-	2.21	94.50
B-Line cooling			-	-	-	-	
B-Line shakeout	1.58	1.58	-	-	-	18.90	
Total	**23.33**	**14.93**	**-**	**-**	**-**	**21.11**	**94.50**
1990 modification							
Wheelabrator shotblast loading station	2.38	2.38	-	-	-	-	-
Wheelabrator shotblast machine	15.40	9.24	-	-	-	-	-
Total	**17.78**	**11.62**	-	-	-	-	-
1991 modification							
EIF1	14.84	14.84	-	-	-	-	-
EIF2			-	-	-	-	-
EIF3			-	-	-	-	-
EIF4			-	-	-	-	-
Charge handling system			-	-	-	-	-
Total	**14.84**	**14.84**	-				
2001 modification							
Metal scrap crusher	11.00	6.16	-	-	-	-	-
Rotary reclaimer			-	-	-	-	-
Sand and metal conveyor			-	-	-	-	-
Enclosed conveyor system	10.64	5.96	-	-	-	-	-
Pneumatically conveyed sand storage silo			-	-	-	-	-
High speed continuous sand mixer and hopper	0.21	0.21	-	-	-	24.90	-
Total	**21.86**	**12.33**	**0.00**	**0.00**	**0.00**	**24.90**	**0.00**

Limited Potential Emissions (tons/year) = Limited throughput (tons/year)* Emission Factor * 1 ton/2000lbs

Appendix A: Emission Calculations
Gray Iron Foundry

Company Name: Weil Mc-Lain
Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Operating Permit: T091-39531-00020
Reviewer: Rithika Reddy

Emission Factors (lbs/ton)

Description	SCC	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	VOC	CO
Electric Induction Furnaces	30400303	0.90	0.86	0.86	0	0	0	0
Charge Handling	30400315	0.60	0.36	0.36	0	0	0	0
Metal Scrap Crusher	30400315	0.50	0.05	0.05	0	0	0	0
Rotary Reclaimer	30400315	3.20	2.24	2.24	0	0	0	0
Sand handling	30400350	3.60	0.54	0.54	0	0	0	0

Uncontrolled Potential Emissions (tons/yr)

Process	Maximum Throughput (ton/hr)	PM	PM_{10}	$PM_{2.5}$	SOx	NOx	VOC	CO
EIF1	5	19.71	18.83	18.83	0	0	0	0
EIF2	5	19.71	18.83	18.83	0	0	0	0
EIF3	5	19.71	18.83	18.83	0	0	0	0
EIF4	5	19.71	18.83	18.83	0	0	0	0
Charge handling system	20	52.56	31.54	31.54	0	0	0	0
Metal scrap crusher	15	32.85	3.29	3.29	0	0	0	0
Rotary reclaimer	15	210.24	147.17	147.17	0	0	0	0
Sand and metal conveyor	10	157.68	23.65	23.65	0	0	0	0
Enclosed conveyor system	10	157.68	23.65	23.65	0	0	0	0
Pneumatically conveyed sand storage silo	10	157.68	23.65	23.65	0	0	0	0
Silo#1 and Silo#2	33.6	529.80	79.47	79.47	0	0	0	0
Core and mold sand hopper, elevator, and conveyor	16.8	264.90	39.74	39.74	0	0	0	0
Cold box sand mixer	5.8	91.45	13.72	13.72	0.00	0.00	0.00	0.00
Cold box line sand hopper and elevator	5.8	91.45	13.72	13.72	0.00	0.00	0.00	0.00
No bake/pepset sand mixer and hopper	6	94.61	14.19	14.19	0.00	0.00	0.00	0.00
A-Line bond silo	200	3153.60	473.04	473.04	0.00	0.00	0.00	0.00
B-Line sand silo B-Line bond silo B-Line muller	128	2018.30	302.75	302.75	0.00	0.00	0.00	0.00
High speed continuous sand mixer and sand hopper	42	662.26	99.34	99.34	0.00	0.00	See core making	0.00
Total Uncontrolled Emissions (tons/yr)		**131.4**	**106.9**	**106.9**	**0.0**	**0.0**	**0.0**	**0.0**

Particulate Matter Control Efficiencies

Description	Control Device	Efficiency
Electric Induction Furnaces	Dust Collector	65.0%
Charge Handling	Dust Collector	50.0%

Limited Potential to Emit (tons/hr)

Process	Limited Throughput (ton/yr)	PM	PM_{10}	$PM_{2.5}$	SOx	NOx	VOC	CO
EIF1	8000.0	14.8	14.8	18.8	0.0	0.0	0.0	0.0
EIF2				18.8	0.0	0.0	0.0	0.0
EIF3				18.8	0.0	0.0	0.0	0.0
EIF4				18.8	0.0	0.0	0.0	0.0
Charge handling system				31.5	0.0	0.0	0.0	0.0
Metal scrap crusher	44000.0	11.0	6.2	3.3	0.0	0.0	0.0	0.0
Rotary reclaimer				147.2	0.0	0.0	0.0	0.0
Sand and metal conveyor				23.7	0.0	0.0	0.0	0.0
Enclosed conveyor system	42574.0	10.6	6.0	23.7	0.0	0.0	0.0	0.0
Pneumatically conveyed sand storage silo				23.7	0.0	0.0	0.0	0.0
No bake/pepset sand mixer and hopper	-	16.6	14.2	14.2	0.0	0.0	0.0	0.0
A-Line bond silo	10000.0	18.0	2.7	473.0	0.0	0.0	0.0	0.0
B-Line sand silo	130000.0	16.3	8.5	302.7	0.0	0.0	0.0	0.0
B-Line muller					0.0	0.0	0.0	0.0
B-Line bond silo	10000.0	1.3	0.7		0.0	0.0	0.0	0.0
High speed continuous sand mixer and sand hopper	42574.0	0.2	0.2	99.3	0.0	0.0	See core making	0.0

Note:
AP-42/Fire emission factors were used for calculations.

Methodology:
Uncontrolled Potential Emissions (tons/year) = Emission Factor (lb/ton) * Material throughput (ton/hr)*8760 hr/yr * 1/2000 ton/lb
Limited Potential Emissions (tons/year) = Limited throughput (tons/year)* Emission Factor * 1 ton/2000lbs
For the charge handling system, 20% applies to PSD. As noted in TSD to Significant Permit Modification No. 091-30667-00020, issued on April 17, 2012, "In 1991, the charge handling was modified to increase the overall capacity from 16 ton per hour to 20 tons per hour. The 16 tons per hour cupola was replaced with four (4) 5 tons per hour electric induction furnaces. Therefore, there was a four (4) tons per hour increase in capacity. The 20% increase was as a result of an increase in capacity of the charge handling from 16 tons per hour to 20 tons per hour in 1991."

Appendix A: Emission Calculations
Gray Iron Foundry

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

Machine	Capacity (ton cores/hr)	Maximum Resin Content (%)	VOC Emission Factor from Resin Evaporation (lbs/ton core)	Max. Catalyst Usage (lb/ton cores)	Uncontrolled VOC Emissions from Resin Usage (tons/yr)	Uncontrolled VOC Emissions from Catalyst Usage (tons/yr)	Total Uncontrolled VOC Emissions (tons/yr)
Cold box core machine	5.8	1.0%	1.00	2.80	25.40	71.13	96.54
High speed continuous sand mixer and sand hopper	42	1.8%	1.8	2	331.13	367.92	699.05
Total					**356.53**	**439.05**	**795.58**

Methodology
Uncontrolled VOC Emissions (Resin) (tons/yr) = VOC emission factor (lb/ton core) x capacity (tons core/ hr) x 8760hrs/ 1 year x 1 ton /2000 pounds
Uncontrolled VOC Emissions (Catalyst) (tons/yr) = Catalyst usage (lb/ton core) x Capacity (tons core/ hr) x 8760hrs/ 1 year x 1 ton /2000 pounds

Material	Solvent Name	Usage Rate (lbs/month)	Weight % VOC	Weight % Naphthalene	Weight % Methanol	Potential VOC Emissions (tons/yr)	Methanol Emissions (tons/yr)
Cold Box Core Making							
Cold Box Parting Spray	REFCOPART 5905	100.00	88%	0.00%	0.00%	0.53	0.00
Core/Mold Cleaners							
Cold Box Cleaner	AC Attack	100.00	100%	1.50%	0.00%	0.60	0.00
					Total	**1.13**	**0.00**

Methodology
Potential VOC Emissions (tons/yr) = Usage rate (lbs/month) x weight % of VOC x 12 months/ 1 year x 1 ton/2000 pounds

Material	Maximum Usage (tons/yr)	Limited Usage (tons/yr)	Weight % Xylenes	Weight % Cumene	Weight % Ethylene Glycol	Weight % Phenol	Weight % Methanol	Weight % Naphthalene	Potential Xylene Emisions (tons/yr)	Potential Cumene Emissions (tons/yr)	Potential Ethylene Glycol Emissions (ton/yr)	Potential Phenol Emissions (tons/yr)	Potential Methanol Emissions (tons/yr)	Potential Naphthalene Emissions (tons/yr)
Cold Box Core Making														
Cold Box Resin Part I	459.90	40.00	0.00%	0.00%	0.00%	3.00%	0.55%	3.00%	0.00	0.00	0.00	0.00	0.36	0.45
Cold Box Resin Part II	438.00	40.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.55%	0.00	0.00	0.00	0.00	0.00	0.08
Catalyst	71.39	10.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
									0.00	**0.00**	**0.00**	**0.00**	**0.36**	**0.53**

Reduction Factors for Core Making

Pollutant	Cold Box Release Factor
Phenol	0.00%
Formaldehyde	2.00%
MDI	0.00%
Polymeric MDI	0.00%
Naphthalene	3.25%
1,2,4 Trimethylbenzene	3.25%
Xylene	3.25%
Cumene	3.25%
Methanol	N/A

Methodology
HAP Emissions from Resins = Maximum Usage Rate (tons/yr) * % HAP * Reduction Factor (%)
HAP Emissions from Catalysts = Maximum Usage Rate (tons/yr) * % HAP
Reduction factors obtained from the American Foundrymen's Society Publication entitled "Form R Reporting of Binder Chemicals used in Foundries", and refers to the weight percent of HAP that is emitted to the atmosphere.

Limited PTE (tons /year)

Machine	Limited resin throughput (lbs/year)	Limited VOC emission factor from resin (lb VOC/lb resin)	Limited VOC emissions from resin (tons/year)	Limited catalyst throughput (lbs/year)	Limited VOC emission factor from catalyst (lb VOC/lb catalyst)	Limited VOC emissions from catalyst (tons/year)	Total VOC Emissions (tons/yr)
High speed continuous sand mixer and sand hopper	471789.0	0.05	11.79	26211.0	1.00	13.11	24.90
Total							**24.90**

Methodology
Limited PTE (tons/yr) = Limited throughput (lbs/yr) x Limited emission factor (lb/medium) * 1 ton/2000 pounds

Appendix A: Emission Calculations
Gray Iron Foundry

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

Emission Factors (lbs/ton)

Description	SCC	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	VOC	CO	GHGs as CO2e(2)
*Pouring/Casting Cooling	30400320	4.20	2.06	2.06	0.02	0.01	0.14	6.00	10
*Casting Cooling	30400325	1.40	1.40	1.40	0.00	0.00	0.00	**	
*Casting Shakeout	30400331	3.20	2.24	2.24	0.00	0.00	1.20		
Shotblast	30400340	17.00	1.70	1.70	0.00	0.00	0.00	0.00	

Emission factors from AP-42 Chapter 12.10 Gray Iron Foundries and US EPA Fire Version 6.25, except as otherwise noted
* Emission factors for pouring, cooling, and shakeout are from First Renewal No. T091-24543-00020. PM10 is surrogate for PM2.5
* CO emission factor for pouring/cooling includes emissions from cooling and shakeout.
GHGs as CO2e emissions is equal to CO2 emissions. CO2 emission factor from American Foundry Society (AFS) Data, "Pouring, Cooling, and Shakeout CO/CO2 Emission Sources and Variability" (AFS 08-031).

*Dust Collected (lbs)	*Total Weight of Metal Blasted (tons)	Dust Collector 36-DC-9 Control Efficiency	Dust Collector 36-DC-9 Capture Efficiency	Uncontrolled Emissions during Collection (lbs)	Uncontrolled Particulate Emission Factor (lbs/ton Metal Blasted)	Maximum Capacity Shotblaster (tons/hr)	Potential Particulate Emissions (tons/yr)
1.8	116.23	98%	90%	2.04	0.018	31	2.38

*Dust Collected was weighed by the source. During the collection period, the castings blasted were tracked by the source to determine the total weight of metal blasted.

Methodology:

Uncontrolled Emissions during Collection (lbs) = Dust Collected (lbs) / (Dust Collector Control Efficiency x Dust Collector Capture Efficiency)
Uncontrolled PM/PM10/PM2.5 Emission Factor (lbs/ton Metal Blasted) = Uncontrolled Emissions during Collection (lbs) / Total Weight of Metal Blasted (tons)
Potential Emissions (tons/yr) = Maximum Capacity Shotblaster (tons/hr) x Emission Factor (lbs/ton Metal Blasted) x (8,760 hours/yr) / (2,000 lbs/ton)

Uncontrolled Potential Emissions (tons/yr)

Process	Maximum Throughput (ton/hr)	PM	PM_{10}	$PM_{2.5}$	SOx	NOx	VOC	CO
B-Line pouring	9.0	165.6	81.2	81.2	0.8	0.4	5.5	236.5
B-Line cooling	9.0	55.2	55.2	55.2	0.0	0.0	0.0	-
B-Line shakeout	9.0	126.1	88.3	88.3	0.0	0.0	47.3	-
Floor pouring	6.0	110.4	54.1	54.1	0.5	0.3	3.7	157.7
Floor cooling	6.0	36.8	36.8	36.8	0.0	0.0	0.0	-
Floor shakeout	6.0	84.1	58.9	58.9	0.0	0.0	31.5	-
Floor knockout station	15.0	210.2	147.2	147.2	0.0	0.0	78.8	-
Wheelabrator shotblast loading station	-	2.4	2.4	2.4	-	-	-	-
Wheelabrator shot blast	31.0	2308.3	230.8	230.8	0.0	0.0	0.0	0.0
Tumble shot blast	1.8	130.3	13.0	13.0	0.0	0.0	0.0	0.0

Limited Potential to Emit (tons/year)

Process	Limited throughput (tons/year)	PM	PM_{10}	$PM_{2.5}$	SOx	NOx	VOC	CO
B-Line pouring	31500	4.3	4.3	81.2	0.8	0.4	2.2	94.5
B-Line cooling				55.2	0.0	0.0	0.0	
B-Line shakeout		1.6	1.6	88.3	0.0	0.0	18.9	
Wheelabrator shot blast	44000	15.4	9.2	230.8	0.0	0.0	0.0	0.0

Methodology:

Uncontrolled Potential Emissions (tons/year) = Emission Factor (lb/ton) * Material throughput (ton/hr)*8760 hr/yr * 1/2000 ton/lb
Limited Potential Emissions (tons/year) = Limited throughput (tons/year)* Emission Factor * 1 ton/2000lbs

Appendix A: Emissions Calculations
Gray Iron Foundries
HAPs from Charge Handling, Melting, and Pouring, Cooling, Shakeout

Company Name: Weil Mc-Lain
Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Operating Permit: T091-39531-00020
Reviewer: Rithika Reddy

The following calculations are from First Renewal No. T091-24543-00020

Process	Maximum Rate (tons iron/hr)	Limited Rate** (tons iron/hr)	PM emission factor lb/ton	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Control Device	Control Efficiency (%)
Charge Handling	20.00	5.71	0.60	chromium	0.00023	0.020	0.006	N/A	
SCC# 3-04-003-15				nickel	0.00040	0.035	0.010		
AP-42 Ch. 12.10				arsenic	0.00008	0.007	0.002		
				Lead	0.00231	0.202	0.058		
				Manganese	0.01860	1.629	0.465		
				Antimony	0.00111	0.097	0.028		
				TOTAL	**0.02273**	**1.99**	**0.57**		
Melting - Electric	20.00	5.71	0.68	chromium	0.00026	0.023	0.001	39-DC-4	80.00%
Induction Furnaces*			stack test	nickel	0.00046	0.040	0.002	39-DC-4	80.00%
EPA SCC# 3-04-003-03				arsenic	0.00009	0.008	0.000	39-DC-4	80.00%
AP-42 Ch. 12.10				Lead	0.05450	4.774	0.273	39-DC-4	80.00%
				Manganese	0.02108	1.847	0.105	39-DC-4	80.00%
				Antimony	0.00126	0.110	0.006	39-DC-4	80.00%
				TOTAL	**0.07764**	**6.80**	**0.39**		
Metal Scrap Crusher	15.00	0.91	0.50	chromium	0.00019	0.012	0.000	39-DC-4	47.50%
SCC# 3-04-003-15				nickel	0.00034	0.022	0.000	39-DC-4	47.50%
AP-42 Ch. 12.10				arsenic	0.00007	0.004	0.000	39-DC-4	47.50%
				Lead	0.00019	0.012	0.000	39-DC-4	47.50%
				Manganese	0.01550	1.018	0.000	39-DC-4	47.50%
				Antimony	0.00093	0.061	0.000	39-DC-4	47.50%
				TOTAL	**0.01721**	**1.13**	**0.00**		
B-Line Pouring	9.0	1.14	4.20	chromium	0.00160	0.063	0.008	N/A	
SCC# 3-04-003-18				nickel	0.00281	0.111	0.014		
				arsenic	0.00055	0.022	0.003		
				Lead	0.01617	0.637	0.081		
				Manganese	0.13020	5.132	0.651		
				Antimony	0.00777	0.306	0.039		
				TOTAL	**0.15910**	**6.27**	**0.80**		
B-Line Cooling	9.0	1.14	1.40	chromium	0.00053	0.021	0.003	N/A	
SCC# 3-04-003-18				nickel	0.00094	0.037	0.005		
				arsenic	0.00018	0.007	0.001		
				Lead	0.00539	0.212	0.027		
				Manganese	0.04340	1.711	0.217		
				Antimony	0.00259	0.102	0.013		
				TOTAL	**0.05303**	**2.09**	**0.27**		
B-Line Shakeout	9.0	1.14	3.20	chromium	0.00122	0.048	0.001	36-1-DC-7	79.20%
SCC# 3-04-003-31				nickel	0.00214	0.085	0.002	36-1-DC-7	79.20%
AP-42 Ch. 12.10				arsenic	0.00042	0.016	0.000	36-1-DC-7	79.20%
				Lead	0.01232	0.486	0.013	36-1-DC-7	79.20%
				Manganese	0.09920	3.910	0.103	36-1-DC-7	79.20%
				Antimony	0.00592	0.233	0.006	36-1-DC-7	79.20%
				TOTAL	**0.12122**	**4.78**	**0.13**		
Floor Pouring	6.0	0.57	4.20	chromium	0.00160	0.042	0.004	N/A	
SCC# 3-04-003-18				nickel	0.00281	0.074	0.007		
				arsenic	0.00055	0.014	0.001		
				Lead	0.01617	0.425	0.040		
				Manganese	0.13020	3.422	0.326		
				Antimony	0.00777	0.204	0.019		
				TOTAL	**0.15910**	**4.18**	**0.40**		
Floor Cooling	6.0	0.57	1.40	chromium	0.00053	0.014	0.001	N/A	
SCC# 3-04-003-18				nickel	0.00094	0.025	0.002		
				arsenic	0.00018	0.005	0.000		
				Lead	0.00539	0.142	0.013		
				Manganese	0.04340	1.141	0.109		
				Antimony	0.00259	0.068	0.006		
				TOTAL	**0.05303**	**1.39**	**0.13**		
Floor Shakeout	6.0	0.57	3.20	chromium	0.00122	0.032	0.003	N/A	
SCC# 3-04-003-31				nickel	0.00214	0.056	0.005		
AP-42 Ch. 12.10				arsenic	0.00042	0.011	0.001		
				Lead	0.01232	0.324	0.031		
				Manganese	0.09920	2.607	0.248		
				Antimony	0.00592	0.156	0.015		
				TOTAL	**0.12122**	**3.19**	**0.30**		
Floor Knockout	15.0	0.57	3.20	chromium	0.00122	0.080	0.001	8-DC-2	79.20%
SCC# 3-04-003-31				nickel	0.00214	0.141	0.001	8-DC-2	79.20%
AP-42 Ch. 12.10				arsenic	0.00042	0.027	0.000	8-DC-2	79.20%
				Lead	0.01232	0.809	0.006	8-DC-2	79.20%
				Manganese	0.09920	6.517	0.052	8-DC-2	79.20%
				Antimony	0.00592	0.389	0.003	8-DC-2	79.20%
				TOTAL	**0.12122**	**7.96**	**0.06**		
Scrap Handling	15.00	4.57	3.20	chromium	0.00122	0.080	0.000	39-DC-5	98.90%
Rotary Reclaimer				nickel	0.00214	0.141	0.000	39-DC-5	98.90%
SCC# 3-04-003-31				arsenic	0.00042	0.027	0.000	39-DC-5	98.90%
AP-42 Ch. 12.10				Lead	0.01232	0.809	0.003	39-DC-5	98.90%
				Manganese	0.09920	6.517	0.022	39-DC-5	98.90%
				Antimony	0.00592	0.389	0.001	39-DC-5	98.90%
				TOTAL	**0.12122**	**7.96**	**0.03**		
Wheelabrator Shot Blast	31.00	5.71	17.00	chromium	0.00046	0.877	0.003	36-DC-8 and 36-DC-9	97.90%
SCC# 3-04-003-40				nickel	0.01139	1.547	0.006	36-DC-8 and 36-DC-9	97.90%
AP-42 Ch. 12.10				arsenic	0.00221	0.300	0.001	36-DC-8 and 36-DC-9	97.90%
				Lead	0.06545	8.887	0.034	36-DC-8 and 36-DC-9	97.90%
				Manganese	0.52700	71.556	0.277	36-DC-8 and 36-DC-9	97.90%
				Antimony	0.03145	4.270	0.017	36-DC-8 and 36-DC-9	97.90%
				TOTAL	**0.64396**	**97.44**	**0.34**		
Tumble Shot Blast	1.75	0.11	17.00	chromium	0.00646	0.050	0.000	8-DC-2	98.01%
SCC# 3-04-003-40				nickel	0.01139	0.087	0.000	8-DC-2	98.01%
AP-42 Ch. 12.10				arsenic	0.00221	0.017	0.000	8-DC-2	98.01%
				Lead	0.06545	0.502	0.001	8-DC-2	98.01%
				Manganese	0.52700	4.039	0.005	8-DC-2	98.01%
				Antimony	0.03145	0.241	0.000	8-DC-2	98.01%
				TOTAL	**0.64396**	**4.94**	**0.006**		

* Note: HAP emission factors for the electric induction furnaces are based on the PM emission factor from IDEM approved stack test performed on December 10, 2005 and percent of PM that is HAP based on information from SPECIATE, v 3.1. Lead emission factor from FIRE version 6.24.
**Limited metal throughput rates are not all included as limits in the permit. They are based on information from Weil-McLain on actual throughputs and are used to establish the HAP emission limits in the permit in tons/yr.
HAP emission factors for A-Line pouring are based on PM emission factor used in Title V permit from previous in-house stack test and the percent of PM that is HAP based on information from SPECIATE, v 3.1.
All other HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1.

USEPA Speciate v 3.1 Data	
Metal	Gen. Foundry
Manganese	3.100%
Chromium	0.038%
Nickel	0.067%
Arsenic	0.013%
Antimony	0.185%
Lead	0.385%

Total Potential Emissions Before Controls

chromium	1.35	tons/year
nickel	2.38	tons/year
arsenic	0.46	tons/year
Lead	18.21	tons/year
Manganese	110.03	tons/year
Antimony	6.57	tons/year
Total	**138.99**	**tons/year**

Total Limited Emissions After Controls

	0.03	tons/year
	0.06	tons/year
	0.01	tons/year
	0.58	tons/year
	2.58	tons/year
	0.15	tons/year
	3.41	**tons/year**

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-effiency/100) x Ebc
1 lb = 2000 tons

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Weil Mc-Lain
Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Operating Permit: T091-39531-00020
Reviewer: Rithika Reddy

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Spray Booth PM Control Efficiency	Controlled PM Emissions (ton/yr)
Black Paint	8.42	72.31%	55.7%	16.6%	56.2%	24.00%	1.16390	3.19	1.40	1.63	39.04	7.13	2.97	5.82	75%	90%	0.30
Butyl Cellosolve Solvent	7.53	100.00%	0.0%	100.0%	0.0%	26.98%	0.00114	7.53	7.53	0.01	0.21	0.04	0.00	27.91	75%	90%	0.00
Water Reducible Metal Primer, Gray (E61A570)	10.67	23.43%	11.2%	12.3%	47.5%	35.00%	0.57711	2.50	1.31	0.76	18.18	3.32	0.00	3.75	100%	0%	0.00
										2.39	**57.43**	**10.48**	**2.97**				**0.30**

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 Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(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

Material	Density (Lb/Gal)	Gallons of Material (gal/hr)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Benzene	Weight % Hexane	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Methanol Emissions (ton/yr)
Black Paint	8.42	1.163895	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Butyl Cellosolve Solvent	7.53	0.001142	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Reducible Metal Primer, Gray (E61A570)	10.67	0.577114	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Potential Emissions										**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Graphite Wash Operation

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

Material	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Weight % Non-Volatiles (solids)	Max Gal of Mat. (lb/hr)	Max Gal of Mat. (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC tons per year	Particulate Potential (ton/yr)	Transfer Efficiency
Refcohol	15.02	33.00%	7.0%	26.0%	12.7%	67.00%	6.05	0.40	4.47	3.91	**1.57**	**0.01**	75%

METHODOLOGY
Maximum gallons of material used per year was provided by the facility.

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 emissions is assumed equal to PM
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)

Appendix A: Emissions Calculations
Top Bond Operation

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

Material	Density (lb/gal)	Weight % Volatile (H20 & 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	Pounds VOC per gallon of coating	Potential VOC tons per year	Particulate Potential (ton/yr)
Top Bond	7.50	70.00%	0.0%	70.0%	0.0%	0.00%	300.00	5.25	5.25	**0.79**	**0.34**

METHODOLOGY
Maximum gallons of material used per month was provided by the facility.
Max Gal of Material/Year =(25 gallons/month) x (12 months/year) = 300 gallons/year

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 emissions is assumed equal to PM
PM/PM10 Potential Tons per Year = (gal/yr) * (lbs/gal) * (1- Weight % Volatiles) * (1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Appendix A: Emissions Calculations
Parts Washers

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

Material	Density (lb/gal)	Weight % Volatile (H20 & 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	Pounds VOC per gallon of coating	Potential VOC tons per year	Particulate Potential (ton/yr)
Zip Clean	8.00	100.00%	0.0%	100.0%	0.0%	0.00%	876.00	8.00	8.00	**3.50**	**0.00**

METHODOLOGY
Maximum gallons of material used per year was provided by the facility.

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)
Particulate Potential Tons per Year = (gal/yr) * (lbs/gal) * (1- Weight % Volatiles) * (1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

HAP Emission Calculations

Material	Density (lb/gal)	Max Gal of Material (gal/yr)	Weight % Ester	Weight % Naphthalene	Potential Ester (ton/yr)	Potential Naphthalene (ton/yr)
Zip Clean	8.00	500.00	1.50%	0.50%	**0.03**	**0.01**

METHODOLOGY
HAPS emission rate (tons/yr) = Density (lb/gal) * Max Gal of Material (gal/yr) * Weight % HAP * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Grinding Opreation

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

Particulate Emissions (tons/yr)			
	Grain Loading (gr/dscf)	Air Flow Rate (scfm)	Particulate Emissions (tons/yr)
Grinding operations	0.03	4000	4.51

Methodology
Uncontrolled Particulate Emissions (tons/yr) = Grain Loading (gr/dscf) x Air Flow rate (scfm) x 60 min/hr x1 lb/7000 grains x 8760 hrs/1 year x 1 ton/2000 pounds

Appendix A: Emissions Calculations
List of natural gas fired units

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

Unit ID	Unit Location	Btu/hr	MMBtu/hr
7	Auditorium AHU	110,000	0.11
12	RTU South Engineering	275,000	0.275
13	RTU North Engineering	275,000	0.275
14	RTU Old Drafting Area	115,000	0.115
15	RTU Drafting Southwest	80,000	0.08
16	RTU Drafting Southeast	80,000	0.08
17	RTU Drafting Northwest	115,000	0.115
18	RTU Drafting Northeast	115,000	0.115
20	RTU Bathroom Next To Stairs	75,000	0.075
22	RTU IT Area	115,000	0.115
23	RTU South Offices Near Front Gate	90,000	0.09
24	RTU School	115,000	0.115
25	AHU Plant Manager	40,000	0.04
28	RTU Maintenance Offices East	60,000	0.06
29	RTU QA Lab Office/Machine	115,000	0.115
32	RTU Melt Offices/Controls	200,000	0.2
35	RTU Trucking Offices	115,000	0.115
36	RTU Machine Shop Lockeroom	200,000	0.2
37	RTU QA Offices	135,000	0.135
38	RTU Cafeteria	300,000	0.3
40	Filter Rack QA Lab	110,000	0.11
43	Engineering MAU	970,000	0.97
44	Commercial Boiler Thermocycler West	400,000	0.4
45	Commercial Boiler Thermocycler Middle	400,000	0.4
46	Commercial Boiler Thermocycler East	400,000	0.4
47	Storeroom Unit Heater #1	150,000	0.15
48	Storeroom Unit Heater #2	100,000	0.1
49	Storeroom Unit Heater #3	200,000	0.2
56	QA Offices Unit Heater	115,000	0.115
51	Cleaning Building Unit Heater #1	175,000	0.175
52	Cleaning Building Unit Heater #2	175,000	0.175
3025	Compressor Room Rapid	750,000	0.75
1	Roof Next Cooling Tower Southeast	3,575,000	3.575
2	South V Roof	3,575,000	3.575
3	Middle V Roof	3,575,000	3.575
4	North V Roof	3,575,000	3.575
5	Roof Over Compressor/Air Dryer Rooms	2,750,000	2.75
6	Roof Over Cleaning Room South End	3,575,000	3.575
7	Roof Machine Shop South Side	3,575,000	3.575
8	Roof Machine Shop North Side	3,575,000	3.575
9	Indoors Southeast Core Room	3,500,000	3.5
10	Indoors Southwest Core Room	2,764,800	2.7648
11	On Ground Outside West Side	1,650,000	1.65
12	On Ground Outside Near Sand Silo	3,575,000	3.575
15	Roof West Side Above A Line	3,025,000	3.025
3144	Former Assembly Warehouse	1,650,000	1.65
1025	*Laddle Heater*	*1,500,000*	1.5
1026	*Laddle Heater*	*1,500,000*	1.5
		Total	**53.61**

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

Emission Unit	Heat Input Rate (MMBtu/hr)
Office boiler	3.4
Town hall boiler	3.4
Preheater	15.8
Afterburner J	3.2
*Other units	53.61
Total	79.41

*Heat input capacity from the natural gas combustion units from the previous page

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
79.4	1020	682.0

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.65	2.59	2.59	0.20	34.10	1.88	28.64

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
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	7.2E-04	4.1E-04	2.6E-02	0.614	1.2E-03	**0.64**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
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	1.7E-04	3.8E-04	4.8E-04	1.3E-04	7.2E-04	**1.9E-03**
					Total HAPs	**0.644**
					Worst HAP	**0.614**

Methodology is the same as above.
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Natural Gas
4-Stroke Rich-Burn (4SRB) Engines

Company Name: Weil Mc-Lain
Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Operating Permit: T091-39531-00020
Reviewer: Rithika Reddy

Generator ID	Heat Input Rate (MMBtu/hr)
G1	0.04
G2	0.03
G3	0.2
G4	0.19
G6	1.02
Total	1.48

Maximum Heat Input Capacity (MMBtu/hr)	1.48
Maximum Hours Operated per Year (hr/yr)	500
Potential Fuel Usage (MMBtu/yr)	740
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	0.73

	Pollutant						
Criteria Pollutants	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	9.50E-03	1.94E-02	1.94E-02	5.88E-04	2.21E+00	2.96E-02	3.72E+00
Potential Emissions (tons/yr)	0.0035	0.01	0.01	0.000	0.82	0.01	1.38

*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.
PM2.5 emission factor is filterable PM2.5 + condensable PM.

Hazardous Air Pollutants (HAPs)

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	2.79E-03	0.001
Acrolein	2.63E-03	0.001
Benzene	1.58E-03	0.001
1,3-Butadiene	6.63E-04	0.000
Formaldehyde	2.05E-02	0.008
Methanol	3.06E-03	0.001
Total PAH**	1.41E-04	0.000
Toluene	5.58E-04	0.000
Xylene	1.95E-04	0.000
	Total	**0.01**

HAP pollutants consist of the nine highest HAPs included in AP-42 Table 3.2-3.
**PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Methodology
Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-3
Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] * [Brake Specific Fuel Consumption (Btu/hp-hr)] * [Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]
Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

	Greenhouse Gas (GHG)		
Greenhouse Gases (GHGs)	CO2	CH4	N2O
Emission Factor in lb/MMBtu*	110	1.25	
Emission Factor in lb/MMcf**			2.2
Potential Emission in tons/yr	40.70	0.46	0.00
Summed Potential Emissions in tons/yr	41.16		
CO2e Total in tons/yr	52.50		

Methodology
*The CO2 and CH4 emission factors are from Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2
**The N2O emission factor is from AP 42, Table 1.4-2. The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
For CO2 and CH4: Emission (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
For N2O: Emission (tons/yr) = [Potential Fuel Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC - Volatile Organic Compounds
CO = Carbon Monoxide
CO2 = Cabon Dioxide
CH4 = Methane
N2O = Nitrous Oxide
CO2e = CO2 equivalent emissions

Appendix A: Emission Calculations
Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)
2-Stroke Lean-Burn (2SLB) Engines

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

Emissions calculated based on output rating (hp)

Generator ID	hp
G5	1005.75

Output Horsepower Rating (hp)	1005.8
Maximum Hours Operated per Year	500
Potential Throughput (hp-hr/yr)	502,875
Sulfur Content (S) of Fuel (% by weight)	0.500

	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	0.18	0.10	0.10	1.02	6.03	0.18	1.38

*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

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	1.37E-03	4.95E-04	3.40E-04	1.39E-04	4.44E-05	1.39E-05	3.73E-04

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Potential Emission of Total HAPs (tons/yr)	**2.77E-03**

Green House Gas Emissions (GHG)

	Pollutant		
	CO2	CH4	N2O
Emission Factor in lb/hp-hr	1.16E+00	6.35E-05	9.30E-06
Potential Emission in tons/yr	2.92E+02	1.60E-02	2.34E-03

Summed Potential Emissions in tons/yr	**2.92E+02**
CO2e Total in tons/yr	**2.93E+02**

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.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Unpaved Roads

Company Name: **Weil Mc-Lain**
Address: **500 Blaine Street, Michigan City, Indiana 46360**
Part 70 Operating Permit: **T091-39531-00020**
Reviewer: **Rithika Reddy**

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and AP-42, Ch 11.2.1.

Semi-Tractor Trailers

0.125	trip/hr x	
0.1	mile/trip x	
2	(round trip) x	
8,760	hr/yr =	219 miles per year

Ef =	k*5.9*(s/12)*(S/30)*(W/3)^0.7*(w/4)^0.5*((365-p)/365)	
=	4.03	lb/mile
where k =	0.8	(particle size multiplier)
s =	4.8	% silt content of unpaved roads
p =	125	days of rain greater than or equal to 0.01 inches
S =	10	miles/hr vehicle speed
W =	27	tons average vehicle weight
w =	18	wheels

PM: 4.03 lb/mi x 219 mi/yr = / 2000 lb/ton = **0.44 tons/yr**

P M-10: 35% of PM = **0.15 tons/yr**

Appendix A: Emission Calculations
Compliance with 326 IAC 6-3-2

Company Name: Weil Mc-Lain
Address: 500 Blaine Street, Michigan City, Indiana 46360
Part 70 Operating Permit: T091-39531-00020
Reviewer: Rithika Reddy

	Emission Unit/ Process	Process Rate (tons/hr)	Allowable Emissions (lb/hr)	PTE (lb/hr)	Control Required
	EIF1	5.00	12.05	4.5	N
	EIF2	5.00	12.05	4.5	N
	EIF3	5.00	12.05	4.5	N
	EIF4	5.00	12.05	4.5	N
	Charge handling system	20.00	30.51	12	N
	Metal scrap crusher	15.00	25.16	7.5	N
*	Rotary reclaimer	25.00	35.43	48	Y
*	Sand and metal conveyor	25.00	35.43	36	Y
	Enclosed conveyor system	10.00	19.18	36	Y
	Pneumatically conveyed sand storage silo	10.00	19.18	36	Y
	Silo#1	16.80	27.15	60.48	Y
	Silo#2	16.80	27.15	60.48	Y
	Core and mold sand hopper, elevator, and conveyor	16.80	27.15	60.48	Y
	Cold box sand mixer	5.80	13.31	20.88	Y
	Cold box core machine	5.80	13.31	**	
	Cold box line sand hopper and elevator	5.80	13.31	20.88	Y
	No bake/pepset sand mixer	6.00	13.62	21.60	Y
	No bake/pepset line sand hopper	6.00	13.62	21.60	Y
	A-Line bond silo	200.00	58.51	720.00	Y
	B-Line sand silo	128.00	53.79	460.80	Y
	B-Line bond silo				
	B-Line muller				
*	B-Line pouring	113.00	52.51	37.80	N
*	B-Line cooling	113.00	52.51	12.60	N
*	B-Line shakeout	113.00	52.51	28.80	N
	High speed continuous sand mixer and sand hopper	42.00	42.97	151.20	Y
*	Floor pouring	35.00	41.32	25.20	N
*	Floor cooling	35.00	41.32	8.40	N
*	Floor shakeout	35.00	41.32	19.20	N
*	Floor knockout station	15.00	25.16	48.00	Y
	Wheelabrator shot blast	31.00	40.24	527.00	Y
	Tumble shot blast	1.75	5.97	29.75	Y

* The throughput to the mold lines includes the sand throughput. This determination was taken from the Part 70 Operating Renewal :T091-32850-00020
** This determination has been made in renewal No.:091-39531-00020. However, potential to emit PM has not been calculated for this emission unit.

Methodology:

$E = 4.10\ P^{0.67}$ for Process weight < 60000 lb/hr

$E = 55.0\ P^{0.11} - 40$ for Process weight > 60000 lb/hr

E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

November 30, 2018

Mark Richardson
WEIL MCLAIN A UNITED DOMINION COMPANY
500 Blaine St
Michigan City, IN 47360

Re: Public Notice
Weil-McLain
Permit Level: Title V Renewal
Permit Number: 091-39531-00020

Dear Mark Richardson:

Enclosed is a copy of your draft Title V Renewal, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the News Dispatch in Michigan City, IN publish the abbreviated version of the public notice no later than December 6, 2018. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Laporte County Public Library-Michigan City Branch, 100 East 4th Street in Michigan City IN. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Rithika Reddy, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 4-9694 or dial (317) 234-9694.

Sincerely,
Len Pogost

Len Pogost
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover Letter 1/9/2017

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

November 29, 2018

News Dispatch
Attn: Classifieds
121 West Michigan Boulevard
Michigan City, In 46360

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Weil-McLain, Laporte County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than December 6, 2018.

Please send the invoice, notarized form, clippings showing the date of publication to Bo Liu, at the Indiana Department of Environmental Management, Accounting, Room N1340, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Len Pogost at 800-451-6027 and ask for extension 3-2803 or dial 317-233-2803.

Sincerely,

Len Pogost

Len Pogost
Permit Branch
Office of Air Quality

Permit Level: Title V Renewal
Permit Number: 091-39531-00020

Enclosure

PN Newspaper.dot 1/9/2017

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

November 30, 2018

To: Laporte County Public Library-Michigan City Branch 100 East 4th Street Michigan City IN

From: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

Applicant Name: Weil-McLain
Permit Number: 091-39531-00020

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

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. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library 1/9/2017

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

Notice of Public Comment

November 30, 2018
Weil-McLain
091-39531-00020

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover Letter 1/9/2017

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
DRAFT INDIANA AIR PERMIT

November 30, 2018

A 30-day public comment period has been initiated for:

Permit Number: **091-39531-00020**
Applicant Name: **Weil-McLain**
Location: **Michigan City, LaPorte County, Indiana**

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:
http://www.in.gov/ai/appfiles/idem-caats/

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management
Office of Air Quality, Permits Branch
100 North Senate Avenue
Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

Mail Code 61-53

IDEM Staff	LPOGOST 11/30/2018 WEIL MCLAIN A UNITED DOMINION COMPANY 091-39531-00020 (draft)			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: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Mark Richardson WEIL MCLAIN A UNITED DOMINION COMPANY 500 Blaine St Michigan City IN 47360 (Source CAATS)									
2		LaPorte City Council/ Mayors Ofc. 801 Michigan Avenue LaPorte IN 46350 *(Local Official)*									
3		Laporte County Public Library-Michigan City Branch 100 East 4th Street Michigan City IN 46360-3393 *(Library)*									
4		LaPorte County Commissioners 555 Michigan Avenue # 202 LaPorte IN 46350 *(Local Official)*									
5		Mr. Dennis Hahney Pipefitters Association, Local Union 597 1461 East Summit St Crown Point IN 46307 *(Affected Party)*									
6		Michigan City-City Council and Mayors Office 100 E. Michigan Blvd. Michigan City IN 46360 *(Local Official)*									
7		LaPorte County Health Department County Complex, 4th Floor, 809 State St. LaPorte IN 46350-3329 *(Health Department)*									
8		Mr. Dick Paulen Barnes & Thornburg 52700 Independence Court, Suite 150 Elkhart IN 46514-8155 *(Affected Party)*									
9		Anthony Henley August Mack Environmental, Inc. 1302 North Meridian Street, Suite 300 Indianapolis IN 46202 *(Consultant)*									
10		Jeff Mayes News-Dispatch 422 Franklin St Michigan City IN 46360 *(Affected Party)*									
11											
12											
13											
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

FACSIMILIE OF PS Form 3877