



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Michael R. Pence*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 5, 2013

RE: Firestone Building Products Company / 097-32754-00140

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

## Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures  
FN-REGIS.dot 1/2/08



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Lance Black  
Firestone Building Products Company  
3525 South Arlington Avenue  
Indianapolis, IN 46203

April 5, 2013

Re: 097-32754-00140  
Revision to  
R097-30565-00140

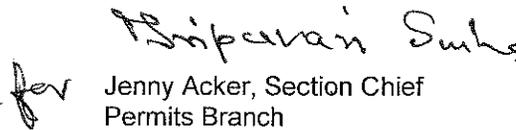
Dear Mr. Black:

Firestone Building Products Company was issued Registration No. R097-30565-00140 on June 30, 2011 for a stationary asphalt roofing material manufacturing operation, located at 3524 South Arlington Avenue, Indianapolis, Indiana. On January 18, 2013, the Office of Air Quality (OAQ) received an application from the source requesting to include an existing emergency generator into the permit. Additionally, paved roads are now included in the permit as well. Pursuant to the provisions of 326 IAC 2-5.5-6(g), a revision to this permit is hereby approved as described in the attached Technical Support Document.

The source shall continue to operate according to 326 IAC 2-5.5 (Registrations). Please find enclosed the revised registration and supporting documents. A copy of the registration is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Laura Spriggs, at (800) 451-6027, press 0 and ask for Laura Spriggs or extension 3-5693, or dial (317) 233-5693.

Sincerely,

  
Jenny Acker, Section Chief  
Permits Branch  
Office of Air Quality

JA/lss

Attachment: Revised Registration

cc: File - Marion County  
Marion County Health Department  
Compliance and Enforcement Branch



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## REGISTRATION OFFICE OF AIR QUALITY

**Firestone Building Products Company**  
**3525 South Arlington Avenue**  
**Indianapolis, Indiana 46203**

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Registration No. 097-30565-00140	
Issued by/Original Signed by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date:  June 30, 2011

Registration Revision No. 097-32754-00140	
Issued by: <i>for</i> <i>Keiperan Sinks</i> Jenny Acker, Section Chief Permits Branch Office of Air Quality	Issuance Date:  April 5, 2013

## SECTION A

## SOURCE SUMMARY

This registration is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Registrant 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 Registrant to obtain additional permits pursuant to 326 IAC 2.

### A.1 General Information

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The Registrant owns and operates a stationary manufacturing facility for asphalt roofing materials.

Source Address:	3525 South Arlington Avenue, Indianapolis, Indiana 46203
General Source Phone Number:	317-781-4182
SIC Code:	2952 (Asphalt Felts and Coatings)
County Location:	Marion County
Source Location Status:	Nonattainment for PM2.5 Attainment for all other criteria pollutants
Source Status:	Registration Not 1 of 28 Listed Source Categories

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

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

- (a) One (1) modified bitumen asphalt roofing line (Line 1), identified as EU-01, constructed in 1990, with a maximum capacity of 22,603 pounds of asphalt compound per hour, and 13,461 pounds of limestone filler per hour. Mineral products are applied to the surface of the roll roofing (Asphalt-saturated fiberglass substrate). The system consists of three (3) 12-ton capacity mix tanks, one (1) 10-ton capacity mix tank, one (1) 15-ton use tank, and one (1) two section impregnation vat. All of the components of this system use a Monsanto Mist Eliminator (MME) identified as CE-01 for control, and exhausts to a 59-foot stack, identified as Stack 1.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

Under 40 CFR 63, Subpart AAAAAAA (7A), this is considered an affected facility.

- (b) One (1) 100-ton storage silo for calcium carbonate filler material, identified as EU-02, constructed in 1990. Control equipment consists of one (1) Whirl Airflow dust collector identified as CE-04 for control, and exhausts to Stack 2.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

- (c) One (1) 50-ton capacity sand storage silo, identified as EU-07, handling 10,205 tons of sand per year, constructed in 1994. The silo is equipped with an Ultra Industries baghouse identified as CE-07 for control, and exhausts to Stack 7.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

- (d) One (1) water based roofing granule treatment system to be applied on the Modified Bituman to continuously-fed fiber glass roofing material to improve the performance and characteristics of roofing granules, approved for construction in 2010, with a maximum capacity of 2 tons/ hour of mineral products, exhausting indoors. All of the components of this system use a cartridge filter system, CE-06, to control particulate emissions and exhaust through stack 6.

The process consists of following equipment:

- (1) one (1) bulk bag to bucket elevator
- (2) one (1) bucket elevator to elevator storage
- (3) one (1) elevated storage to blender
- (4) one (1) mixer to elevated storage
- (5) one (1) elevated storage to bucket elevator
- (6) one (1) drying process
- (7) tote filling operation
- (8) one (1) HEPA cartridge air handling system

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

- (e) Three (3) 3,470 cubic foot (98.25 cubic meters) asphalt storage tanks, with two (2) installed in 1990, and one (1) installed in 1998, and relocated in 2011, with all three tanks using a Monsanto Mist Eliminator (MME), identified as CE-01 for control, and exhausting to a 59-foot stack, identified as Stack 1.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

- (f) One (1) 3,370 cubic foot (95.41 cubic meters) liquid polypropylene storage tank, installed in 1990, using no controls.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

- (g) One (1) natural gas fired Heatec Thermal Fluid Heater, identified as EU-03, installed in 1989, with a capacity of 6 million Btu per hour, using no controls, and venting to Stack 3.
- (h) One (1) natural gas fired Inferno Therm Polyolefin (APP) Heater, identified as EU-08, installed in 1989, with a capacity of 0.8 million Btu per hour, using no controls, and venting to Stack 8.
- (i) Fourteen (14) seasonally used natural gas space heaters, with a combined maximum capacity of 15.2 MMBtu/hour.
- (j) One (1) natural gas-fired emergency spark-ignition (4SRB) generator, identified as EU-15, permitted in 2013, installed in 2004, with a maximum rating of 23 horsepower, using no controls and venting indoors.

Under 40 CFR 63, Subpart ZZZZ, this is considered an existing affected source.

- (k) Paved roads.

## SECTION B

## GENERAL CONDITIONS

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

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Terms in this registration shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

### B.2 Effective Date of Registration [IC 13-15-5-3]

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Pursuant to IC 13-15-5-3, this registration is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

### B.3 Registration Revocation [326 IAC 2-1.1-9]

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

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM the fact that continuance of this registration is not consistent with purposes of this article.

### B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

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- (a) All terms and conditions of permits established prior to Registration No. 097-30565-00140 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this registration.

### B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

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Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this registration.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

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

Indianapolis, IN 46204-2251

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

**B.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]**

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Pursuant to 326 IAC 2-5.5-6(a), an application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

**B.7 Registrations [326 IAC 2-5.1-2(i)]**

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Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

**B.8 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this registration, the Registrant shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this registration 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 Registrant's control, the PMPs cannot be prepared and maintained within the above time frame, the Registrant may extend the date an additional ninety (90) days provided the Registrant 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 Registrant shall implement the PMPs.

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

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

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

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

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.2 Fugitive Dust Emissions [326 IAC 6-4]

The Registrant 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).

### Testing Requirements [326 IAC 2-5.1-3(e)(2)]

#### C.3 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.

- (b) The Registrant shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Registrant 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 Monitoring Requirements [326 IAC 2-5.1-3(e)(2)]**

### **C.4 Instrument Specifications [326 IAC 2-1.1-11]**

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Registrant may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Registrant can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

## **Corrective Actions and Response Steps**

### **C.5 Response to Excursions or Exceedances [326 IAC 2-5.1-3(e)(2)]**

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

- (a) The Registrant 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 Registrant 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 Registrant shall record the reasonable response steps taken.

## **Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)]**

### **C.6 General Record Keeping Requirements [326 IAC 2-5.1-3(e)(2)]**

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Registrant, the Registrant 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 Registrant 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.

## SECTION D.1

## OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (a) One (1) modified bitumen asphalt roofing line (Line 1), identified as EU-01, constructed in 1990, with a maximum capacity of 22,603 pounds of asphalt compound per hour, and 13,461 pounds of limestone filler per hour. Mineral products are applied to the surface of the roll roofing (asphalt-saturated fiberglass substrate). The system consists of three (3) 12-ton capacity mix tanks, one (1) 10-ton capacity mix tank, one (1) 15-ton use tank, and one (1) two section impregnation vat. All of the components of this system use a Monsanto Mist Eliminator (MME) identified as CE-01 for control, and exhausts to a 59-foot stack, identified as Stack 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 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

#### D.1.1 Particulate Emissions Limitations Except Lake County [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2, particulate emissions from the asphalt roofing line, EU-01, shall not exceed 0.03 grain per dry standard cubic foot (dscf).

#### D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for Line 1 operations (EU-01) and 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 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

#### D.1.3 Compliance Determination

In order to ensure compliance with Condition D.1.1, the Mist Collector MME, identified as CE-01, shall operate at all times that the asphalt roofing line EU-01 is operating.

### Compliance Monitoring Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

#### D.1.4 Visible Emissions Notations

- (a) Visible emission notations of the CE-01 stack exhaust shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal. A notation of abnormal visible emissions is not a deviation from this permit.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedences contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take

reasonable response steps shall be considered a deviation from this permit.

#### D.1.5 Monsanto Mist Eliminator Parameter Monitoring

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- (a) The Permittee shall record the pressure drop across the Monsanto Mist Eliminator (CE-01) used in conjunction with Line 1 at least once per day when the roofing line is in operation. When for any one reading, the pressure drop across the Monsanto Mist Eliminator is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 3.0 and 12.0 inches of water, unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions or 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.
- (b) The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

#### **Record Keeping and Reporting Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

##### D.1.6 Record Keeping Requirements

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- (a) To document the compliance status with Condition D.1.4, the Permittee shall maintain a record of the daily visible emission notations of the CE-01 stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g., the process did not operate that day).
- (b) To document the compliance status with Condition D.1.5, the Permittee shall maintain a daily record of the pressure drop across the Monsanto Mist Eliminator (CE-01). 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 of this permit contains the Permittee's obligations with regard to the records required by this condition.

## SECTION D.2

## OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (b) One (1) 100-ton storage silo for calcium carbonate filler material, identified as EU-02, constructed in 1990. Control equipment consists of one (1) Whirl Airflow dust collector identified as CE-04 for control, and exhausts to Stack 2.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

- (c) One (1) 50-ton capacity sand storage silo, identified as EU-07, handling 10,205 tons of sand per year, constructed in 1994. The silo is equipped with an Ultra Industries baghouse identified as CE-07 for control, and exhausts to Stack 7.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

- (d) One (1) water based roofing granule treatment system to be applied on the Modified Bituman to continuously-fed fiber glass roofing material to improve the performance and characteristics of roofing granules, approved for construction in 2010, with a maximum capacity of 2 tons/ hour of mineral products, exhausting indoors. All of the components of this system use a cartridge filter system, CE-06, to control particulate emissions and exhaust through stack 6.

The process consists of following equipment:

- (1) one (1) bulk bag to bucket elevator
- (2) one (1) bucket elevator to elevator storage
- (3) one (1) elevated storage to blender
- (4) one (1) mixer to elevated storage
- (5) one (1) elevated storage to bucket elevator
- (6) one (1) drying process
- (7) tote filling operation
- (8) one (1) HEPA cartridge air handling system

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

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

### Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

#### D.2.1 Particulate Emissions Limitations Except Lake County [326 IAC 6.5-1-2]

- (a) Pursuant to 326 IAC 6.5-1-2, particulate emissions from the storage silo, EU-02, shall not exceed 0.03 grain per dry standard cubic foot (dscf).
- (b) Pursuant to 326 IAC 6.5-1-2, particulate emissions from the sand storage silo, EU-07, shall not exceed 0.03 grain per dry standard cubic foot (dscf).

- (c) Pursuant to 326 IAC 6.5-1-2, particulate emissions from the granule treatment process shall not exceed 0.03 grain per dry standard cubic foot (dscf).
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**D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]**

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A Preventive Maintenance Plan is required for EU-02, EU-07, and the granule treatment process, 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 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]**

**D.2.3 Compliance Determination**

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- (a) In order to ensure compliance with Condition D.2.1(a), the dust collector, identified as CE-04, shall operate at all times that the storage silo EU-02 is operating.
- (b) In order to ensure compliance with Condition D.2.1(b), the dust collector, identified as CE-07, shall operate at all times that the sand storage silo EU-07 is operating.
- (c) In order to ensure compliance with Condition D.2.1(c), the cartridge filter system, identified as CE-06, shall operate at all times that the granule treatment process is operating.

## SECTION D.3

## OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (g) One (1) natural gas fired Heatec Thermal Fluid Heater, identified as EU-03, installed in 1989, with a capacity of 6 million Btu per hour, using no controls, and venting to Stack 3.

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

### Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

#### D.3.1 Particulate Matter Emissions (PM) [326 IAC 6-2-4]

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Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Indirect Heating), particulate emissions from the EU-03 heater shall be limited to 0.6 pounds per million British thermal units (lbs/MMBtu) heat input.

## SECTION E.1

## OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (a) One (1) modified bitumen asphalt roofing line (Line 1), identified as EU-01, constructed in 1990, with a maximum capacity of 22,603 pounds of asphalt compound per hour, and 13,461 pounds of limestone filler per hour. Mineral products are applied to the surface of the roll roofing (Asphalt-saturated fiberglass substrate). The system consists of three (3) 12-ton capacity mix tanks, one (1) 10-ton capacity mix tank, one (1) 15-ton use tank, and one (1) two section impregnation vat. All of the components of this system use a Monsanto Mist Eliminator (MME) identified as CE-01 for control, and exhausts to a 59-foot stack, identified as Stack 1.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

Under 40 CFR 63, Subpart AAAAAAA (7A), this is considered an affected facility.

- (b) One (1) 100-ton storage silo for calcium carbonate filler material, identified as EU-02, constructed in 1990. Control equipment consists of one (1) Whirl Airflow dust collector identified as CE-04 for control, and exhausts to Stack 2.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

- (c) One (1) 50-ton capacity sand storage silo, identified as EU-07, handling 10,205 tons of sand per year, constructed in 1994. The silo is equipped with an Ultra Industries baghouse identified as CE-07 for control, and exhausts to Stack 7.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

- (d) One (1) water based roofing granule treatment system to be applied on the Modified Bituman to continuously-fed fiber glass roofing material to improve the performance and characteristics of roofing granules, approved for construction in 2010, with a maximum capacity of 2 tons/ hour of mineral products, exhausting indoors. All of the components of this system use a cartridge filter system, CE-06, to control particulate emissions and exhaust through stack 6.

The process consists of following equipment:

- (1) one (1) bulk bag to bucket elevator
- (2) one (1) bucket elevator to elevator storage
- (3) one (1) elevated storage to blender
- (4) one (1) mixer to elevated storage
- (5) one (1) elevated storage to bucket elevator
- (6) one (1) drying process
- (7) tote filling operation
- (8) one (1) HEPA cartridge air handling system

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

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

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

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Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the asphalt roofing materials manufacturing facility except as otherwise specified in 40 CFR Part 60, Subpart UU.

E.1.2 Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture [40 CFR 60 Subpart UU] [40 CFR 60.470]

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The Permittee which engages in asphalt roofing manufacturing shall comply with the following provisions of 40 CFR 60, Subpart UU (included as Attachment A of this permit):

- (1) 40 CFR 60.472 (a)(1)(i)(ii)
- (2) 40 CFR 60.472 (a)(2)
- (3) 40 CFR 60.472 (a)(3)
- (4) 40 CFR 60.472 (b)(1)
- (5) 40 CFR 60.472 (b)(2)
- (6) 40 CFR 60.472 (b)(3)
- (7) 40 CFR 60.472 (b)(4)
- (8) 40 CFR 60.472 (b)(5)
- (9) 40 CFR 60.472 (c)
- (10) 40 CFR 60.472 (d)
- (11) 40 CFR 60.473 (a)
- (12) 40 CFR 60.473 (b)
- (13) 40 CFR 60.473 (c)
- (14) 40 CFR 60.473 (d)
- (15) 40 CFR 60.474 (a)(1)
- (16) 40 CFR 60.474 (a)(2)
- (17) 40 CFR 60.474 (a)(3)
- (18) 40 CFR 60.474 (b)
- (19) 40 CFR 60.474 (c)(1)
- (20) 40 CFR 60.474 (c)(2)
- (21) 40 CFR 60.474 (c)(3)
- (22) 40 CFR 60.474 (c)(4)(i)
- (23) 40 CFR 60.474 (c)(4)(ii)
- (24) 40 CFR 60.474 (c)(5)
- (25) 40 CFR 60.474 (d)
- (26) 40 CFR 60.474 (e)
- (27) 40 CFR 60.474 (f)(1)
- (28) 40 CFR 60.474 (f)(2)
- (29) 40 CFR 60.474 (g)

E.1.3 Testing Requirements [326 IAC 2-1.1-11]

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The Permittee shall perform the stack testing as required under NSPS 40 CFR 60, Subpart UU, utilizing methods as approved by the Commissioner to document compliance with Condition E.1.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

## SECTION E.2

## OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (a) One (1) modified bitumen asphalt roofing line (Line 1), identified as EU-01, constructed in 1990, with a maximum capacity of 22,603 pounds of asphalt compound per hour, and 13,461 pounds of limestone filler per hour. Mineral products are applied to the surface of the roll roofing (Asphalt-saturated fiberglass substrate). The system consists of three (3) 12-ton capacity mix tanks, one (1) 10-ton capacity mix tank, one (1) 15-ton use tank, and one (1) two section impregnation vat. All of the components of this system use a Monsanto Mist Eliminator (MME) identified as CE-01 for control, and exhausts to a 59-foot stack, identified as Stack 1.

Under 40 CFR 60 Subpart UU, this is considered an affected facility.

Under 40 CFR 63, Subpart AAAAAAA (7A), this is considered an affected facility.

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

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

Pursuant to 40 CFR 63.11565, the Registrant shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 5 of 40 CFR 63, Subpart AAAAAAA for the asphalt roofing line, EU-01, in accordance with schedule in 40 CFR 63 Subpart AAAAAAA.

### E.2.2 National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Area Sources of Asphalt Processing and Asphalt Roofing Manufacturing [40 CFR Part 63, Subpart AAAAAAA [326 IAC 20-1]

The Registrant, which engages in the manufacture of asphalt roofing materials, shall comply with the following provisions of 40 CFR Part 63, Subpart AAAAAAA (included as Attachment B of this permit):

Applicable portions of the NESHAP are the following:

- (1) 40 CFR 63.11559
- (2) 40 CFR 63.11560(a)
- (3) 40 CFR 63.11561(b) and (c)
- (4) 40 CFR 63.11562
- (5) 40 CFR 63.11563
- (6) 40 CFR 63.11564
- (7) 40 CFR 63.11565
- (8) 40 CFR 63.11566
- (9) 40 CFR 63.11567
- (10) Tables 2, 3, 4, and 5

### E.2.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee shall perform the stack testing as required under NESHAP 40 CFR 63, Subpart AAAAAAA, utilizing methods as approved by the Commissioner to document compliance with Condition E.2.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

## SECTION E.3

## OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (j) One (1) natural gas-fired emergency spark-ignition (4SRB) generator, identified as EU-15, permitted in 2013, installed in 2004, with a maximum rating of 23 horsepower, using no controls and venting indoors.

Under 40 CFR 63, Subpart ZZZZ, this is considered an existing affected source.

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

### E.3.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants (NESHAP) [40 CFR Part 63, Subpart A] [326 IAC 20-1]

Pursuant to 40 CFR 63.6665, the Registrant shall comply with the provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 8 of 40 CFR 63, Subpart ZZZZ, in accordance with the schedule in 40 CFR 63, Subpart ZZZZ.

### E.3.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] [326 IAC 20-82]

The Registrant, which operates a stationary reciprocating internal combustion engine shall comply with the following provisions of 40 CFR 63, Subpart ZZZZ (included as Attachment C of this permit) with a compliance date of October 13, 2013:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585(a), (c), (d)
- (3) 40 CFR 63.6590(a)(1)(iii)
- (4) 40 CFR 63.6595(a)(1), (b), (c)
- (5) 40 CFR 63.6603(a)
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6625(e)(3), (f), (h), (j)
- (8) 40 CFR 63.6640(a), (b), (e), (f)(1), (f)(2), (f)(4)
- (9) 40 CFR 63.6645(a)(5)
- (10) 40 CFR 63.6655 (a), (e)(3), (f)(2)
- (11) 40 CFR 63.6660
- (12) 40 CFR 63.6665
- (13) 40 CFR 63.6670
- (14) 40 CFR 63.6675
- (15) Table 2d to Subpart ZZZZ of Part 63 (item 5)
- (16) Table 6 to Subpart ZZZZ of Part 63, (item 9)
- (17) Table 8 to Subpart ZZZZ of Part 63

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

**REGISTRATION  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

<b>Company Name:</b>	Firestone Building Products Company
<b>Address:</b>	3525 South Arlington Avenue
<b>City:</b>	Indianapolis, Indiana 46203
<b>Phone Number:</b>	317-784-1161
<b>Registration No.:</b>	097-30565-00140

I hereby certify that Firestone Building Products Company is :

still in operation.

I hereby certify that Firestone Building Products Company is :

no longer in operation.

in compliance with the requirements of Registration No. 097-30565-00140.

not in compliance with the requirements of Registration No. 097-30565-00140.

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

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

<b>Noncompliance:</b>

**Attachment A**  
**to Registration No. 097-30565-00140**

**40 CFR 60, Subpart UU—Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture**

SOURCE: 47 FR 34143, Aug. 6, 1982, unless otherwise noted.

**§ 60.470 Applicability and designation of affected facilities.**

(a) The affected facilities to which this subpart applies are each saturator and each mineral handling and storage facility at asphalt roofing plants; and each asphalt storage tank and each blowing still at asphalt processing plants, petroleum refineries, and asphalt roofing plants.

(b) Any saturator or mineral handling and storage facility under paragraph (a) of this section that commences construction or modification after November 18, 1980, is subject to the requirements of this subpart. Any asphalt storage tank or blowing still that processes and/or stores asphalt used for roofing only or for roofing and other purposes, and that commences construction or modification after November 18, 1980, is subject to the requirements of this subpart.

Any asphalt storage tank or blowing still that processes and/or stores only nonroofing asphalts and that commences construction or modification after May 26, 1981, is subject to the requirements of this subpart.

**§ 60.471 Definitions.**

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

*Afterburner (A/B)* means an exhaust gas incinerator used to control emissions of particulate matter.

*Asphalt processing* means the storage and blowing of asphalt.

*Asphalt processing plant* means a plant which blows asphalt for use in the manufacture of asphalt products.

*Asphalt roofing plant* means a plant which produces asphalt roofing products (shingles, roll roofing, siding, or saturated felt).

*Asphalt storage tank* means any tank used to store asphalt at asphalt roofing plants, petroleum refineries, and asphalt processing plants. Storage tanks containing cutback asphalts (asphalts diluted with solvents to reduce viscosity for low temperature applications) and emulsified asphalts (asphalts dispersed in water with an emulsifying agent) are not subject to this regulation.

*Blowing still* means the equipment in which air is blown through asphalt flux to change the softening point and penetration rate.

*Catalyst* means a substance which, when added to asphalt flux in a blowing still, alters the penetrating-softening point relationship or increases the rate of oxidation of the flux.

*Coating blow* means the process in which air is blown through hot asphalt flux to produce coating asphalt. The coating blow starts when the air is turned on and stops when the air is turned off.

*Electrostatic precipitator (ESP)* means an air pollution control device in which solid or liquid particulates in a gas stream are charged as they pass through an electric field and precipitated on a collection surface.

*High velocity air filter (HVAF)* means an air pollution control filtration device for the removal of sticky, oily, or liquid aerosol particulate matter from exhaust gas streams.

*Mineral handling and storage facility* means the areas in asphalt roofing plants in which minerals are unloaded from a carrier, the conveyor transfer points between the carrier and the storage silos, and the storage silos.

*Saturator* means the equipment in which asphalt is applied to felt to make asphalt roofing products. The term saturator includes the saturator, wet looper, and coater.

[47 FR 34143, Aug. 6, 1982, as amended at 65 FR 61762, Oct. 17, 2000]

**§ 60.472 Standards for particulate matter.**

(a) On and after the date on which § 60.8(b) requires a performance test to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any saturator:

(1) Particulate matter in excess of:

(i) 0.04 kg/Mg (0.08 lb/ton) of asphalt shingle or mineral-surfaced roll roofing produced, or

(ii) 0.04 kg/Mg (0.08 lb/ton) of saturated felt or smooth-surfaced roll roofing produced;

(2) Exhaust gases with opacity greater than 20 percent; and

(3) Any visible emissions from a saturator capture system for more than 20 percent of any period of consecutive valid observations totaling 60 minutes. Saturators that were constructed before November 18, 1980, and that have not been reconstructed since that date and that become subject to these standards through modification are exempt from the visible emissions standard. Saturators that have been newly constructed or reconstructed since November 18, 1980 are subject to the visible emissions standard.

(b) On and after the date on which § 60.8(b) requires a performance test to be completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any blowing still:

(1) Particulate matter in excess of 0.67 kg/Mg (1.3 lb/ton) of asphalt charged to the still when a catalyst is added to the still; and

(2) Particulate matter in excess of 0.71 kg/Mg (1.4 lb/ton) of asphalt charged to the still when a catalyst is added to the still and when No. 6 fuel oil is fired in the afterburner; and

(3) Particulate matter in excess of 0.60 kg/Mg (1.2 lb/ton) of asphalt charged to the still during blowing without a catalyst; and

(4) Particulate matter in excess of 0.64 kg/Mg (1.3 lb/ton) of asphalt charged to the still during blowing without a catalyst and when No. 6 fuel oil is fired in the afterburner; and

(5) Exhaust gases with an opacity greater than 0 percent unless an opacity limit for the blowing still when fuel oil is used to fire the afterburner has been established by the Administrator in accordance with the procedures in § 60.474(g).

(c) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any asphalt storage tank exhaust gases with opacity greater than 0 percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period. If, however, the emissions from any asphalt storage tank(s) are ducted to a control device for a saturator, the combined emissions shall meet the emission limit contained in paragraph (a) of this section during the time the saturator control device is operating. At any other time the asphalt storage tank(s) must meet the opacity limit specified above for storage tanks.

(d) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any mineral handling and storage facility emissions with opacity greater than 1 percent.

[47 FR 34143, Aug. 6, 1982, as amended at 65 FR 61762, Oct. 17, 2000]

**§ 60.473 Monitoring of operations.**

(a) The owner or operator subject to the provisions of this subpart, and using either an electrostatic precipitator or a high velocity air filter to meet the emission limit in § 60.472(a)(1) and/or (b)(1) shall continuously monitor and record the temperature of the gas at the inlet of the control device. The temperature monitoring instrument shall have an accuracy of  $\pm 15$  °C ( $\pm 25$  °F) over its range.

(b) The owner or operator subject to the provisions of this subpart and using an afterburner to meet the emission limit in § 60.472(a)(1) and/or (b)(1) shall continuously monitor and record the temperature in the combustion zone of the afterburner. The monitoring instrument shall have an accuracy of  $\pm 10$  °C ( $\pm 18$  °F) over its range.

(c) An owner or operator subject to the provisions of this subpart and using a control device not mentioned in paragraphs (a) or (b) of this section shall provide to the Administrator information describing the operation of the control device and the process parameter(s) which would indicate proper operation and maintenance of the device. The Administrator may require continuous monitoring and will determine the process parameters to be monitored.

(d) The industry is exempted from the quarterly reports required under § 60.7(c). The owner/operator is required to record and report the operating temperature of the control device during the performance test and, as required by § 60.7(d), maintain a file of the temperature monitoring results for at least two years.

[47 FR 34143, Aug. 6, 1982, as amended at 65 FR 61762, Oct. 17, 2000]

**§ 60.474 Test methods and procedures.**

(a) For saturators, the owner or operator shall conduct performance tests required in § 60.8 as follows:

(1) If the final product is shingle or mineral-surfaced roll roofing, the tests shall be conducted while 106.6-kg (235-lb) shingle is being produced.

(2) If the final product is saturated felt or smooth-surfaced roll roofing, the tests shall be conducted while 6.8-kg (15-lb) felt is being produced.

(3) If the final product is fiberglass shingle, the test shall be conducted while a nominal 100-kg (220-lb) shingle is being produced.

(b) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(c) The owner or operator shall determine compliance with the particulate matter standards in § 60.472 as follows:

(1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E=(c_s Q_{sd})/(PK)$$

where:

E=emission rate of particulate matter, kg/Mg (lb/ton).

$c_s$  =concentration of particulate matter, g/dscm (gr/dscf).

$Q_{sd}$  =volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P=asphalt roofing production rate or asphalt charging rate, Mg/hr (ton/hr).

K=conversion factor, 1000 g/kg [7000 (gr/lb)].

(2) Method 5A shall be used to determine the particulate matter concentration ( $c_s$ ) and volumetric flow rate ( $Q_{sd}$ ) of the effluent gas. For a saturator, the sampling time and sample volume for each run shall be at least 120 minutes and 3.00 dscm (106 dscf), and for the blowing still, at least 90 minutes or the duration of the coating blow or non-coating blow, whichever is greater, and 2.25 dscm (79.4 dscf).

(3) For the saturator, the asphalt roofing production rate (P) for each run shall be determined as follows: The amount of asphalt roofing produced on the shingle or saturated felt process lines shall be obtained by direct measurement. The asphalt roofing production rate is the amount produced divided by the time taken for the run.

(4) For the blowing still, the asphalt charging rate (P) shall be computed for each run using the following equation:

$$P=(Vd)/(K' \theta)$$

where:

P=asphalt charging rate to blowing still, Mg/hr (ton/hr).

V=volume of asphalt charged,  $m^3$  ( $ft^3$ ).

$d$ =density of asphalt,  $\text{kg/m}^3$  ( $\text{lb/ft}^3$ ).

$K'$ =conversion factor, 1000  $\text{kg/Mg}$  (2000  $\text{lb/ton}$ ).

$\theta$ =duration of test run, hr.

(i) The volume ( $V$ ) of asphalt charged shall be measured by any means accurate to within 10 percent.

(ii) The density ( $d$ ) of the asphalt shall be computed using the following equation:

$$d = K_1 - K_2 T_i$$

Where:

$d$  = Density of the asphalt,  $\text{kg/m}^3$  ( $\text{lb/ft}^3$ )

$K_1$  = 1056.1  $\text{kg/m}^3$  (metric units)

= 64.70  $\text{lb/ft}^3$  (English Units)

$K_2$  = 0.6176  $\text{kg}/(\text{m}^3 \text{ } ^\circ\text{C})$  (metric units)

= 0.0694  $\text{lb}/(\text{ft}^3 \text{ } ^\circ\text{F})$  (English Units)

$T_i$  = temperature at the start of the blow,  $^\circ\text{C}$  ( $(^\circ\text{deg};\text{F})$ )

(5) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

(d) The Administrator will determine compliance with the standards in § 60.472(a)(3) by using Method 22, modified so that readings are recorded every 15 seconds for a period of consecutive observations during representative conditions (in accordance with § 60.8(c)) totaling 60 minutes. A performance test shall consist of one run.

(e) The owner or operator shall use the monitoring device in § 60.473 (a) or (b) to monitor and record continuously the temperature during the particulate matter run and shall report the results to the Administrator with the performance test results.

(f) If at a later date the owner or operator believes that the emission limits in § 60.472(a) and (b) are being met even though one of the conditions listed in this paragraph exist, he may submit a written request to the Administrator to repeat the performance test and procedure outlined in paragraph (c) of this section.

(1) The temperature measured in accordance with § 60.473(a) is exceeding that measured during the performance test.

(2) The temperature measured in accordance with § 60.473(b) is lower than that measured during the performance test.

(g) If fuel oil is to be used to fire an afterburner used to control emissions from a blowing still, the owner or operator may petition the Administrator in accordance with § 60.11(e) of the General Provisions to establish an opacity standard for the blowing still that will be the opacity standard when fuel oil is used to fire the afterburner. To obtain this opacity standard, the owner or operator must request the Administrator to determine opacity during an initial, or subsequent, performance test when fuel oil is used to fire the afterburner. Upon receipt of the results of the performance test, the Administrator will make a finding concerning compliance with the mass standard for the blowing still. If the Administrator finds that the

facility was in compliance with the mass standard during the performance test but failed to meet the zero opacity standard, the Administrator will establish and promulgate in the FEDERAL REGISTER an opacity standard for the blowing still that will be the opacity standard when fuel oil is used to fire the afterburner. When the afterburner is fired with natural gas, the zero percent opacity remains the applicable opacity standard.

[54 FR 6677, Feb. 14, 1989, as amended 54 FR 27016, June 27, 1989; 65 FR 61762, Oct. 17, 2000]

**Attachment B  
to Registration No. 097-30565-00140**

**40 CFR 63, Subpart AAAAAAA—National Emission Standards for Hazardous Air Pollutants for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing**

SOURCE: 74 FR 63260, Dec. 2, 2009, unless otherwise noted.

***Applicability and Compliance Dates***

**§ 63.11559 *Am I subject to this subpart?***

(a) You are subject to this subpart if you own or operate an asphalt processing operation and/or asphalt roofing manufacturing operation that is an area source of hazardous air pollutant (HAP) emissions, as defined in § 63.2.

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

(1) *Asphalt processing.* The affected source for asphalt processing operations is the collection of all blowing stills, as defined in § 63.11566, at an asphalt processing operation.

(2) *Asphalt roofing manufacturing.* The affected source for asphalt roofing manufacturing operations is the collection of all asphalt coating equipment, as defined in § 63.11566, at an asphalt roofing manufacturing operation.

(c) This subpart does not apply to hot mix asphalt plant operations that are used in the paving of roads or hardstand, or operations where asphalt may be used in the fabrication of a built-up roof.

(d) An affected source is a new affected source if you commenced construction or reconstruction after July 9, 2009.

(e) An affected source is reconstructed if it meets the criteria as defined in § 63.2.

(f) An affected source is an existing source if it is not new or reconstructed.

(g) This subpart does not apply to research or laboratory facilities, as defined in section 112(c)(7) of the Clean Air Act.

(h) 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 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.

**§ 63.11560 *What are my compliance dates?***

(a) If you own or operate an existing affected source, you must be in compliance with the applicable provisions in this subpart no later than December 2, 2010. As specified in § 63.11562(f), you must demonstrate initial compliance within 180 calendar days after December 2, 2010.

(b) If you own or operate a new affected source, you must be in compliance with the provisions in this subpart on or before December 2, 2009 or upon startup, whichever date is later. As specified in

§ 63.11562(g), you must demonstrate initial compliance with the applicable emission limits no later than 180 calendar days after December 2, 2009 or within 180 calendar days after startup of the source, whichever is later.

### ***Standards and Compliance Requirements***

#### ***§ 63.11561 What are my standards and management practices?***

(a) For asphalt processing operations, you must meet the emission limits specified in Table 1 of this subpart.

(b) For asphalt roofing manufacturing lines, you must meet the applicable emission limits specified in Table 2 of this subpart.

(c) These standards apply at all times.

#### ***§ 63.11562 What are my initial compliance requirements?***

(a) For asphalt processing operations, you must:

(1) Demonstrate initial compliance with the emission limits specified in Table 1 of this subpart by:

(i) Conducting emission tests using the methods specified in Table 3 of this subpart; or

(ii) Using the results of a previously-conducted emission test as specified in paragraph (d) of this section.

(2) Establish the value or range of values of the operating parameters specified in Table 4 of this subpart:

(i) Using the operating parameter data recorded during the compliance emission tests; or

(ii) Using the operating parameter data recorded during a previously-conducted emission test.

(b) For asphalt roofing manufacturing lines that use a control device to comply with the emission limits in Table 2 of this subpart, you must:

(1) Demonstrate initial compliance by:

(i) Conducting emission tests using the methods specified in Table 3 of this subpart; or

(ii) Using the results of a previously-conducted emission test as specified in paragraph (d) of this section.

(2) Establish the value of the operating parameter specified in Table 4 of this subpart for thermal oxidizers:

(i) Using the operating parameter data recorded during the compliance emission tests; or

(ii) Using the operating parameter data recorded during a previously-conducted emission test.

(3) Establish the value or range of values of the operating parameters specified in Table 4 of this subpart for control devices other than thermal oxidizers:

- (i) Using the operating parameter data recorded during the compliance emission tests;
  - (ii) Using the operating parameter data recorded during a previously-conducted emission test; or
  - (iii) Using manufacturer performance specifications.
- (c) For asphalt roofing manufacturing lines that do not require a control device to comply with the emission limits in Table 2 of this subpart, you must:
- (1) Demonstrate initial compliance by:
    - (i) Conducting emission tests using the methods specified in Table 3 of this subpart,
    - (ii) Using the results of a previously-conducted emission test as specified in paragraph (d) of this section; or
    - (iii) Using process knowledge and engineering calculations as specified in paragraph (e) of this section.
  - (2) Establish the value or range of values of the operating parameters specified in Table 4 of this subpart:
    - (i) Using the operating parameter data recorded during the compliance emission tests;
    - (ii) Using the operating parameter data recorded during a previously-conducted emission test; or
    - (iii) Using process knowledge and engineering calculations as specified in paragraph (f) of this section.
- (d) If you are using a previously-conducted emission test to demonstrate compliance with the emission limitations in this subpart for existing sources, as specified in paragraphs (a)(1)(ii), (b)(1)(ii), or (c)(1)(ii) of this section, the following conditions must be met:
- (1) The emission test was conducted within the last 5 years;
  - (2) No changes have been made to the process since the time of the emission test;
  - (3) The operating conditions and test methods used for the previous test conform to the requirements of this subpart; and
  - (4) The data used to establish the value or range of values of the operating parameters, as specified in paragraphs (a)(2)(ii), (b)(2)(ii), or (c)(2)(ii) of this section, were recorded during the emission test.
- (e) If you are using process knowledge and engineering calculations to demonstrate initial compliance as specified in paragraph (c)(1)(iii) of this section, you must prepare written documentation that contains the data and any assumptions used to calculate the process emission rate that demonstrate compliance with the emission limits specified in Table 2 of this subpart.
- (f) If you are using process knowledge and engineering calculations to establish the value or range of values of operating parameters as specified in paragraph (c)(2)(iii) of this section, you must prepare written documentation that contains the data and any assumptions used to show that the process parameters and corresponding parameter values correlate to the process emissions.

(g) For existing sources, you must demonstrate initial compliance no later than 180 calendar days after December 2, 2010.

(h) For new sources, you must demonstrate initial compliance no later than 180 calendar days after December 2, 2009 or within 180 calendar days after startup of the source, whichever is later.

(i) For emission tests conducted to demonstrate initial compliance with the emission limits specified in Tables 1 and 2 of this subpart, you must follow the requirements specified in paragraphs (i)(1) through (i)(4) of this section.

(1) You must conduct the tests while manufacturing the product that generates the greatest PAH and PM emissions to the control device inlet, or exiting the process if you are not using a control device to comply with the emissions limits specified in Tables 1 and 2 of this subpart.

(2) You must conduct a minimum of three separate test runs for each compliance test specified in paragraphs (a)(1)(i), (b)(1)(i), and (c)(1)(i) of this section according to the requirements specified in § 63.7(e)(3). The sampling time and sample volume of each test run must be as follows:

(i) For asphalt processing operations, the sampling time and sample volume for each test run must be at least 90 minutes or the duration of the coating blow or non-coating blow, whichever is greater, and 2.25 dscm (79.4 dscf).

(ii) For asphalt coating operations, the sampling time and sample volume for each test run must be at least 120 minutes and 3.00 dscm (106 dscf).

(3) For asphalt processing operations, you must use the following equations to calculate the asphalt charging rate (P).

$$(i) P = (Vd)/(K' \Theta)$$

Where:

P = asphalt charging rate to blowing still, Mg/hr (ton/hr).

V = volume of asphalt charged, m<sup>3</sup> (ft<sup>3</sup>).

d = density of asphalt, kg/m<sup>3</sup> (lb/ft<sup>3</sup>).

K' = conversion factor, 1000 kg/Mg (2000 lb/ton).

Θ = duration of test run, hr.

$$(ii) d = K_1 - K_2 T_i$$

Where:

d = Density of the asphalt, kg/m<sup>3</sup> (lb/ft<sup>3</sup>)

d = K<sub>1</sub> - K<sub>2</sub> T<sub>i</sub>

K<sub>1</sub> = 1056.1 kg/m<sup>3</sup> (metric units)

= 66.6147 lb/ft<sup>3</sup> (English Units)

$$K_2 = 0.6176 \text{ kg}/(\text{m}^3 \text{ }^\circ\text{C}) \text{ (metric units)}$$
$$= 0.02149 \text{ lb}/(\text{ft}^3 \text{ }^\circ\text{F}) \text{ (English Units)}$$

$T_i$  = temperature at the start of the blow,  $^\circ\text{C}$  ( $^\circ\text{F}$ )

(4) You must use the following equation to demonstrate compliance with the emission limits specified in Table 2 of this subpart:

$$E = [(C)*(Q)/(P)*(K)]$$

Where:

E = emission rate of particulate matter, kg/Mg (lb/ton).

C = concentration of particulate matter, g/dscm (gr/dscf).

Q = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P = the average asphalt roofing production rate or asphalt charging rate over the duration of the test, Mg/hr (ton/hr).

K = conversion factor, 1000 g/kg [7000 (gr/lb)].

**§ 63.11563 What are my monitoring requirements?**

(a) You must maintain the operating parameters established under § 63.11562(a)(2), (b)(2), (b)(3), and (c)(2) as specified in Table 4 of this subpart.

(b) If you are using a control device to comply with the emission limits specified in Tables 1 and 2 of this subpart, you must develop and make available for inspection by the delegated authority, upon request, a site-specific monitoring plan for each monitoring system that addresses the following:

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

(2) Performance and equipment specifications for the probe or interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system; and

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

(i) In your site-specific monitoring plan, you must also address the following:

(A) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8);

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

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

(c) If you are using a control device to comply with the emission limits specified in Tables 1 and 2 of this subpart, you must install, operate, and maintain a continuous parameter monitoring system (CPMS) as specified in paragraphs (c)(1) through (c)(3) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.

(2) To determine the 3-hour average, you must:

(i) Have a minimum of four successive cycles of operation to have a valid hour of data.

(ii) Have valid data from at least three of four equally spaced data values for that hour from a CPMS that is not out-of-control according to your site-specific monitoring plan.

(iii) Determine the 3-hour average of all recorded readings for each operating day, except as stated in paragraph (g) of this section. You must have at least two of the three hourly averages for that period using only hourly average values that are based on valid data (*i.e.*, not from out-of-control periods).

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(d) For each temperature monitoring device, you must meet the CPMS requirements in paragraphs (c)(1) through (c)(3) of this section and the following requirements:

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) For a noncryogenic temperature range, use a temperature sensor with a minimum measurement sensitivity of 2.8 °C or 1.0 percent of the temperature value, whichever is larger.

(3) If a chart recorder is used, the recorder sensitivity in the minor division must be at least 20 °F.

(4) Perform an accuracy check at least semiannually or following an operating parameter deviation:

(i) According to the procedures in the manufacturer's documentation; or

(ii) By comparing the sensor output to redundant sensor output; or

(iii) By comparing the sensor output to the output from a calibrated temperature measurement device; or

(iv) By comparing the sensor output to the output from a temperature simulator.

(5) Conduct accuracy checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.

(6) At least quarterly or following an operating parameter deviation, perform visual inspections of components if redundant sensors are not used.

(e) For each pressure measurement device, you must meet the CPMS requirements of paragraphs (e)(1) through (e)(6) of this section and the following requirements:

(1) Locate the pressure sensor(s) in, or as close as possible, to a position that provides a representative measurement of the pressure.

- (2) Use a gauge with a minimum measurement sensitivity of 0.12 kiloPascals or a transducer with a minimum measurement sensitivity of 5 percent of the pressure range.
- (3) Check pressure tap for blockage daily. Perform an accuracy check at least quarterly or following an operating parameter deviation:
- (i) According to the manufacturer's procedures; or
  - (ii) By comparing the sensor output to redundant sensor output.
- (4) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.
- (5) At least monthly or following an operating parameter deviation, perform a leak check of all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.
- (6) At least quarterly or following an operating parameter deviation, perform visible inspections on all components if redundant sensors are not used.
- (f) For each electrostatic precipitator (ESP) used to control emissions, you must install and operate a CPMS that meets the requirements of paragraphs (c)(1) through (c)(3) of this section to provide representative measurements of the voltage supplied to the ESP.
- (g) If you are not using a control device to comply with the emission limits specified in Tables 1 and 2 of this subpart, you must develop and make available for inspection by the delegated authority, upon request, a site-specific monitoring plan. The plan must specify the process parameters established during the initial compliance assessment and how they are being monitored and maintained to demonstrate continuous compliance.
- (h) If you would like to use parameters or means other than those specified in Table 4 of this subpart to demonstrate continuous compliance with the emission limits specified in Tables 1 and 2 of this subpart, you must apply to the Administrator for approval of an alternative monitoring plan under § 63.8(f). The plan must specify how process parameters established during the initial compliance assessment will be monitored and maintained to demonstrate continuous compliance.
- (i) At all times the owner or operator 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 the owner or operator 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.
- (j) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.
- (k) You must operate and maintain the CPMS in continuous operation according to the site-specific monitoring plan.

**§ 63.11564 What are my notification, recordkeeping, and reporting requirements?**

(a) You must submit the notifications specified in paragraphs (a)(1) through (a)(6) of this section.

(1) You must submit all of the notifications in §§ 63.5(b), 63.7(b); 63.8(e) and (f); 63.9(b) through (e); and 63.9(g) and (h) that apply to you by the dates specified in those sections.

(2) As specified in § 63.9(b)(2), if you have an existing affected source, you must submit an Initial Notification not later than 120 calendar days after December 2, 2009.

(3) As specified in § 63.9(b)(4) and (5), if you have a new affected source, you must submit an Initial Notification not later than 120 calendar days after you become subject to this subpart.

(4) You must submit a notification of intent to conduct a compliance test at least 60 calendar days before the compliance test is scheduled to begin, as required in § 63.7(b)(1).

(5) You must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). You must submit the Notification of Compliance Status, including the compliance test results, before the close of business on the 60th calendar day following the completion of the compliance test according to § 63.10(d)(2).

(6) If you are using data from a previously-conducted emission test to serve as documentation of compliance with the emission standards and operating limits of this subpart, you must submit the test data in lieu of the initial compliance test results with the Notification of Compliance Status required under paragraph (a)(5) of this section.

(b) You must submit a compliance report as specified in paragraphs (b)(1) through (b)(4) of this section.

(1) If you are using a control device to comply with the emission limits, the compliance report must identify the controlled units ( e.g., blowing stills, saturators, coating mixers, coaters). If you are not using a control device to comply with the emission limits, the compliance report must identify the site-specific process operating parameters monitored to determine compliance with the emission limits.

(2) During periods for which there are no deviations from any emission limitations (emission limit or operating limit) that apply to you, the compliance report must contain the information specified in paragraphs (b)(2)(i) through (b)(2)(v) of this section.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period.

(iv) A statement that there were no deviations from the emission limitations during the reporting period.

(v) If there were no periods during which the CPMS was out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

(3) For each deviation from an emission limitation (emission limit and operating limit), you must include the information in paragraphs (b)(3)(i) through (b)(3)(xii) of this section.

- (i) The date and time that each deviation started and stopped.
  - (ii) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.
  - (iii) The date, time and duration that each CPMS was out-of-control, including the information in § 63.8(c)(8).
  - (iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
  - (v) 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.
  - (vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
  - (vii) A summary of the total duration of CPMS downtime during the reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that reporting period.
  - (viii) An identification of each air pollutant that was monitored at the affected source.
  - (ix) A brief description of the process units.
  - (x) A brief description of the CPMS.
  - (xi) The date of the latest CPMS certification or audit.
  - (xii) A description of any changes in CPMS or controls since the last reporting period.
- (4) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report specified in paragraph (b) of this section according to the following dates:
- (i) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.11560 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 § 63.11560.
  - (ii) 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 § 63.11560.
  - (iii) 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.
  - (iv) 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.
- (c) You must maintain the records specified in paragraphs (c)(1) through (c)(10) 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 requirements in § 63.10(b)(2)(xiv).
- (2) Copies of emission tests used to demonstrate compliance and performance evaluations as required in § 63.10(b)(2)(viii).
- (3) Documentation that shows that the following conditions are true if you use a previously-conducted emission test to demonstrate initial compliance as specified in § 63.11562(a)(1)(ii), (b)(1)(ii), and (c)(1)(ii):
  - (i) The test was conducted within the last 5 years;
  - (ii) No changes have been made to the process since the time of the emission test;
  - (iii) The operating conditions and test methods used for the previous test conform to the requirements of this subpart; and
  - (iv) The data used to establish the value or range of values of the operating parameters, as specified in § 63.11562(a)(2)(ii), (b)(2)(ii), or (c)(2)(ii), were recorded during the emission test.
- (4) Documentation that identifies the operating parameters and values specified in Table 4 of this subpart and that contains the data used to establish the parameter values as specified in § 63.11562(a)(2), (b)(2), (b)(3), or (c)(2).
- (5) Copies of the written manufacturers performance specifications used to establish operating parameter values as specified in § 63.11562(b)(3)(iii).
- (6) Documentation of the process knowledge and engineering calculations used to demonstrate initial compliance as specified in § 63.11562(e).
- (7) Documentation of the process knowledge and engineering calculations used to establish the value or range of values of operating parameters as specified in § 63.11562(f).
- (8) A copy of the site-specific monitoring plan required under § 63.11563(b) or (g).
- (9) A copy of the approved alternative monitoring plan required under § 63.11563(h), if applicable.
- (10) Records of the operating parameter values required in Table 4 of this subpart to show continuous compliance with each operating limit that applies to you.

[74 FR 63260, Dec. 2, 2009, as amended at 75 FR 12989, Mar. 18, 2010]

#### ***Other Requirements and Information***

##### **§ 63.11565 *What general provisions sections apply to this subpart?***

You must comply with the requirements of the General Provisions (40 CFR part 63, subpart A) according to Table 5 of this subpart.

**§ 63.11566 What definitions apply to this subpart?**

*Asphalt coating equipment* means the saturators, coating mixers, and coaters used to apply asphalt to substrate to manufacture roofing products ( e.g., shingles, roll roofing).

*Asphalt flux* means the organic residual material from distillation of crude oil that is generally used in asphalt roofing manufacturing and paving and non-paving asphalt products.

*Asphalt processing operation* means any operation engaged in the preparation of asphalt flux at stand-alone asphalt processing facilities, petroleum refineries, and asphalt roofing facilities. Asphalt preparation, called "blowing," is the oxidation of asphalt flux, achieved by bubbling air through the heated asphalt, to raise the softening point and to reduce penetration of the oxidized asphalt. An asphalt processing facility includes one or more asphalt flux blowing stills.

*Asphalt roofing manufacturing operation* means the collection of equipment used to manufacture asphalt roofing products through a series of sequential process steps. The equipment configuration of an asphalt roofing manufacturing process varies depending upon the type of substrate used ( i.e., organic or inorganic). For example, an asphalt roofing manufacturing line that uses organic substrate ( e.g., felt) typically would consist of a saturator (and wet looper), coating mixer, and coater (although the saturator could be bypassed if the line manufacturers multiple types of products). An asphalt roofing manufacturing line that uses inorganic (fiberglass mat) substrate typically would consist of a coating mixer and coater.

*Blowing still* means the equipment in which air is blown through asphalt flux to change the softening point and penetration rate of the asphalt flux, creating oxidized asphalt.

*Built-up roofing operations* means operations involved in the on-site ( e.g., at a commercial building) assembly of roofing system components ( e.g., asphalt, substrate, surface granules).

*Coater* means the equipment used to apply amended (filled or modified) asphalt to the top and bottom of the substrate (typically fiberglass mat) used to manufacture shingles and rolled roofing products.

*Coating mixer* means the equipment used to mix coating asphalt and a mineral stabilizer, prior to applying the stabilized coating asphalt to the substrate.

*Hot-mix asphalt operation* means operations involved in mixing asphalt cement and aggregates to produce materials for paving roadways and hardstand ( e.g., vehicle parking lots, prepared surfaces for material storage).

*Particulate matter (PM)* means, for the purposes of this subpart, includes any material determined gravimetrically using EPA Method 5A—Determination of Particulate Matter Emissions From the Asphalt Processing And Asphalt Roofing Industry (40 CFR part 60, appendix A-3).

*Responsible official* is defined in § 63.2.

*Saturator* means the equipment used to impregnate a substrate (predominantly organic felt) with asphalt. Saturators are predominantly used for the manufacture of rolled-roofing products ( e.g., saturated felt). For the purposes of this subpart, the term saturator includes impregnation vat and wet looper.

*Wet looper* means the series of rollers typically following the saturator used to provide additional absorption time for asphalt to penetrate the roofing substrate.

**§ 63.11567 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (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, in addition to 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 if implementation and enforcement of this subpart is delegated.

(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 following authorities are retained by the Administrator of U.S. EPA:

- (1) Approval of alternatives to the requirements in §§ 63.11559, 63.11560, 63.11561, 63.11562, and 63.11563.
- (2) Approval of major changes to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.
- (3) Approval of major changes to monitoring under § 63.8(f) and as defined in § 63.90.
- (4) Approval of major changes to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

**Table 1 of Subpart AAAAAAA of Part 63—Emission Limits for Asphalt Processing (Refining) Operations**

For * * *	You must meet the following emission limits * * *
1. Blowing stills	a. Limit PAH emissions to 0.003 lb/ton of asphalt charged to the blowing stills; or
	b. Limit PM emissions to 1.2 lb/ton of asphalt charged to the blowing stills.

**Table 2 of Subpart AAAAAAA of Part 63—Emission Limits for Asphalt Roofing Manufacturing (Coating) Operations**

For * * *	
1. Coater-only production lines	a. Limit PAH emissions to 0.0002 lb/ton of asphalt roofing product manufactured; or
	b. Limit PM emissions to 0.06 lb/ton of asphalt roofing product manufactured.
2. Saturator-only production lines	a. Limit PAH emissions to 0.0007 lb/ton of asphalt roofing product manufactured; or
	b. Limit PM emissions to 0.30 lb/ton of asphalt roofing product manufactured.
3. Combined saturator/coater production lines	a. Limit PAH emissions to 0.0009 lb/ton of asphalt roofing product manufactured; or
	b. Limit PM emissions to 0.36 lb/ton of asphalt roofing product manufactured.

**Table 3 of Subpart AAAAAAA of Part 63—Test Methods**

<b>For * * *</b>	<b>You must use * * *</b>
1. Selecting the sampling locations <sup>a</sup> and the number of traverse points	EPA test method 1 or 1A in appendix A to part 60.
2. Determining the velocity and volumetric flow rate	EPA test method 2, 2A, 2C, 2D, 2F, or 2G, as appropriate, in appendix A to part 60.
3. Determining the gas molecular weight used for flow rate determination	EPA test method 3, 3A, 3B, as appropriate, in appendix A to part 60.
4. Measuring the moisture content of the stack gas	EPA test method 4 in appendix A to part 60.
5. Measuring the PM emissions	EPA test method 5A in appendix A to part 60.
6. Measuring the PAH emissions	EPA test method 23 <sup>b</sup> with analysis by SW-846 Method 8270D.

<sup>a</sup> The sampling locations must be located at the outlet of the process equipment (or control device, if applicable), prior to any releases to the atmosphere.

<sup>b</sup> When using EPA Method 23, the toluene extraction step specified in section 3.1.2.1 of the method should be omitted.

**Table 4 of Subpart AAAAAAA of Part 63—Operating Limits**

<b>If you comply with the emission limits using * * *</b>	<b>You must establish an operating value for * * *</b>	<b>And maintain <sup>a</sup>* * *</b>
1. A thermal oxidizer	Combustion zone temperature	The 3-hour average combustion zone temperature at or above the operating value established as specified in § 63.11562(a)(2) and (b)(2).
2. A high-efficiency air filter or fiber bed filter	a. Inlet gas temperature <sup>b</sup> , and b. Pressure drop across device <sup>b</sup>	The 3-hour average inlet gas temperature within the operating range established as specified in § 63.11562(a)(2) and (b)(3). The 3-hour average pressure drop across the device within the approved operating range established as specified in § 63.11562(a)(2) and (b)(3).
3. An electrostatic precipitator (ESP)	Voltage <sup>c</sup> to the ESP	The 3-hour average ESP voltage <sup>c</sup> at or above the approved operating value established as specified in § 63.11562(a)(2) and (b)(3).
4. Process modifications (i.e., a control device is not required)	Appropriate process monitoring parameters. <sup>d</sup>	The monitoring parameters within the operating values established as specified in § 63.11562(c)(2).

<sup>a</sup> The 3-hour averaging period applies at all times other than startup and shutdown, as defined in § 63.2. Within 24 hours of a startup event, or 24 hours prior to a shutdown event, you must normalize the emissions that occur during the startup or shutdown, when there is no production rate available to assess compliance with the lb/ton of product emission limits, with emissions that occur when the process is

operational. The emissions that occur during the startup or shutdown event must be included with the process emissions when assessing compliance with the emission limits specified in Tables 1 and 2 of this subpart.

<sup>b</sup> As an alternative to monitoring the inlet gas temperature and pressure drop, you can use a leak detection system that identifies when the filter media has been comprised.

<sup>c</sup> As an alternative to monitoring the ESP voltage, you can monitor the ESP instrumentation (e.g.light, alarm) that indicates when the ESP must be cleaned and maintain a record of the instrumentation on an hourly basis. Failure to service the ESP within one hour of the indication is an exceedance of the applicable monitoring requirements specified in § 63.11563(a).

<sup>d</sup> If you are not using a control device to comply with the emission limits specified in Table 2 of this subpart, the process parameters and corresponding parameter values that you select to demonstrate continuous compliance must correlate to the process emissions.

**Table 5 of Subpart AAAAAAA of Part 63—Applicability of General Provisions to Subpart AAAAAAA**

<b>Citation</b>	<b>Subject</b>	<b>Applies to subpart AAAAAAA</b>
§ 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)-(d)	Compliance With Standards and Maintenance Requirements	Yes.
§ 63.6(e)(1)(i)	Operation and Maintenance Requirements	No.
§ 63.6(e)(1)(ii)	Operation and Maintenance Requirements	No.
§ 63.6(e)(1)(iii)	Operation and Maintenance Requirements	Yes.
§ 63.6(e)(2)	[Reserved]	
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	No. Subpart AAAAAAA does not require startup, shutdown, and malfunction plans.
§ 63.6(f)(1)	Compliance with Nonopacity Emission Standards	No. The emission limits apply at all times.
§ 63.6(f)(2)-(3)	Methods for Determining Compliance and Finding of Compliance	Yes.
§ 63.6(h)	Opacity/Visible Emission (VE) Standards	No. Subpart AAAAAAA does not contain opacity or VE standards.
§ 63.6(i)	Compliance Extension	Yes.
§ 63.6(j)	Presidential Compliance Exemption	Yes.
§ 63.7(a)-(d)	Performance Testing Requirements	Yes.

<b>Citation</b>	<b>Subject</b>	<b>Applies to subpart AAAAAAA</b>
§ 63.7(e)(1)	Performance Testing Requirements	No. Subpart AAAAAAA specifies the conditions under which performance tests must be conducted.
§ 63.7(e)(2)-(4)	Conduct of Performance Tests and Data Reduction	Yes.
§ 63.7(f)-(h)	Use of Alternative Test Method; Data Analysis, Recordkeeping, and Reporting; and Waiver of Performance Tests	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Yes.
§ 63.8(a)(2)	Performance Specifications	No. Subpart AAAAAAA does not allow CEMS.
§ 63.8(a)(3)	[Reserved]	
§ 63.8(a)(4)	Monitoring with Flares	Yes.
§ 63.8(b)(1)	Conduct of 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)	CMS maintenance	Yes.
§ 63.8(c)(1)(ii)	Spare Parts for CMS Malfunction	Yes.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements	No. Subpart AAAAAAA does not require startup, shutdown, and malfunction plans.
§ 63.8(c)(2)-(3)	Monitoring System Installation	Yes.
§ 63.8(c)(4)	CMS Requirements	No; § 63.11563 specifies the CMS requirements.
§ 63.8(c)(5)	COMS Minimum Procedures	No. Subpart AAAAAAA does not contain opacity or VE standards.
§ 63.8(c)(6)	CMS Requirements	No; § 63.11563 specifies the CMS requirements.
§ 63.8(c)(7)-(8)	CMS Requirements	Yes.
§ 63.8(d)	CMS Quality Control	No; § 63.11563 specifies the CMS requirements.
§ 63.8(e)-(f)	CMS Performance Evaluation	Yes.
§ 63.8(g)(1)-(4)	Data Reduction Requirements	Yes.
§ 63.8(g)(5)	Data to Exclude from Averaging	No. All monitoring data must be included when calculating averages.
§ 63.9	Notification Requirements	Yes.

Citation	Subject	Applies to subpart AAAAAAA
§ 63.10(a)	Recordkeeping and Reporting Requirements— Applicability	Yes.
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes.
§ 63.10(b)(2)(i)-(iii)	General Recordkeeping Requirements	Yes.
§ 63.10(b)(2)(iv)-(v)	Records of Actions Taken During Startup, Shutdown, and Malfunction Plans	No. Subpart AAAAAAA does not require startup, shutdown, and malfunction plans.
§ 63.10(b)(2)(vi)-(xiv)	General Recordkeeping Requirements	Yes.
§ 63.10(c)(1)-(14)	Additional Recordkeeping Requirements for Sources with Continuous Monitoring Systems	Yes.
§ 63.10(c)(15)	Additional Recordkeeping Requirements for Sources with Continuous Monitoring Systems	No. Subpart AAAAAAA does not require startup, shutdown, and malfunction plans.
§ 63.10(d)(1)-(4)	General Reporting Requirements	Yes.
§ 63.10(d)(5)	Periodic Startup, Shutdown, and Malfunction Reports	No. Subpart AAAAAAA does not require startup, shutdown, and malfunction plans.
§ 63.10(e)	Additional Reporting Requirements for Sources with Continuous Monitoring Systems	Yes.
§ 63.10(f)	Waiver of Recordkeeping or Reporting Requirements	Yes.
§ 63.11	Control Device and Work Practice Requirements	Yes.
§ 63.12	State Authority and Delegations	Yes.
§ 63.13	Addresses of State Air Pollution Control Agencies and EPA Regional Offices	Yes.
§ 63.14	Incorporations by Reference	Yes.
§ 63.15	Availability of Information and Confidentiality	Yes.
§ 63.16	Performance Track Provisions	No.

**Attachment C  
to Registration No. 097-30565-00140**

**40 CFR 63, 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, January 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, January 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, January 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 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.

[75 FR 51589, Aug. 20, 2010; as amended at 78 FR 6701, January 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, January 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.

[75 FR 51589, Aug. 20, 2010, as amended at 78 FR 6702, January 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, January 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:

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

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 ( $\text{CO}_2$ ). If pollutant concentrations are to be corrected to 15 percent oxygen and  $\text{CO}_2$  concentration is measured in

lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific F<sub>o</sub> value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

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

Where:

F<sub>o</sub> = Fuel factor based on the ratio of oxygen volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.

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

F<sub>d</sub> = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

F<sub>c</sub> = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu)

(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:

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

Where:

X<sub>CO<sub>2</sub></sub> = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub> —15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

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

Where:

C<sub>adj</sub> = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O<sub>2</sub>.

C<sub>d</sub> = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X<sub>CO<sub>2</sub></sub> = CO<sub>2</sub> correction factor, percent.

%CO<sub>2</sub> = Measured CO<sub>2</sub> 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 accuracy 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, January 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<sub>2</sub> or CO<sub>2</sub> 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<sub>2</sub> concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (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, January 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<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of this subpart. Measurements to determine O<sub>2</sub> 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<sub>2</sub> emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, January 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<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of this subpart. Measurements to determine O<sub>2</sub> 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<sub>2</sub> 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, January 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, January 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](http://www.epa.gov/cdx) ). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written 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, January 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, January 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 of whether or not such failure is permitted by this subpart.
- (4) Fails to satisfy the general duty to minimize emissions established by § 63.6(e)(1)(i).

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

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

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

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

*Emergency stationary RICE* means any stationary 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<sub>2</sub>.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

*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<sub>x</sub> (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

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

*Spark ignition* means relating to either: A gasoline-fueled engine; or any other type of engine 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 P P P P P of this part, that tests stationary RICE.

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

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

*Subpart* means 40 CFR part 63, subpart 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, January 30, 2013]

**Table 1 a 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. <sup>1</sup>
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub>	

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

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

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

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 . . .
<p>1. Existing, new and reconstructed 4SRB stationary RICE &gt;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 &gt;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<sub>2</sub> and using NSCR.</p>	<p>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</p> <p>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.<sup>1</sup></p>
<p>2. Existing, new and reconstructed 4SRB stationary RICE &gt;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</p> <p>Existing, new and reconstructed 4SRB stationary RICE &gt;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<sub>2</sub> and not using NSCR.</p>	<p>Comply with any operating limitations approved by the Administrator.</p>

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

[76 FR 12867, Mar. 9, 2011, as amended at 78 FR 6706, January 30, 2013]

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

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

[75 FR 9680, Mar. 3, 2010]

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

As stated in §§ 63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and compression ignition stationary RICE >500 HP located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; existing compression ignition stationary RICE >500 HP:

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
<p>1. New and reconstructed 2SLB and CI stationary RICE &gt;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</p> <p>New and reconstructed 2SLB and CI stationary RICE &gt;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.</p>	<p>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</p> <p>b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.<sup>1</sup></p>
<p>2. Existing CI stationary RICE &gt;500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst.</p>	<p>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</p> <p>b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.<sup>1</sup></p>
<p>3. New and reconstructed 2SLB and CI stationary RICE &gt;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</p> <p>New and reconstructed 2SLB and CI stationary RICE &gt;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</p> <p>Existing CI stationary RICE &gt;500 HP complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.</p>	<p>Comply with any operating limitations approved by the Administrator.</p>

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

**Table 2 c 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. <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup> 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. <sup>3</sup>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>3</sup>
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; <sup>2</sup> 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. <sup>3</sup>	
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 <sub>2</sub> .	
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 <sub>2</sub> ; 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 <sub>2</sub> ; or b. Reduce CO emissions by 70 percent or more.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
6. Emergency stationary SI RICE and black start stationary SI RICE. <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
7. Non-Emergency, non-black start stationary SI RICE < 100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, 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. <sup>3</sup>	
8. Non-Emergency, non-black start 2SLB stationary SI RICE < 100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, 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. <sup>3</sup>	
9. Non-emergency, non-black start 2SLB stationary RICE 100 ≤ HP ≤ 500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O <sub>2</sub> .	
10. Non-emergency, non-black start 4SLB stationary RICE 100 ≤ HP ≤ 500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O <sub>2</sub> .	
11. Non-emergency, non-black start 4SRB stationary RICE 100 ≤ HP ≤ 500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O <sub>2</sub> .	

<b>For each . . .</b>	<b>You must meet the following requirement, except during periods of startup . . .</b>	<b>During periods of startup you must . . .</b>
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 <sub>2</sub> .	

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

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

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

[75 FR 51593, Aug. 20, 2010, as amended at 78 FR 6708, January 30, 2013]

**Table 2 d 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:

<b>For each . . .</b>	<b>You must meet the following requirement, except during periods of startup . . .</b>	<b>During periods of startup you must . . .</b>
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; <sup>1</sup> 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.

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
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 <sub>2</sub> ; or  b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE > 500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O <sub>2</sub> ; or  b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE. <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup>  b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and  c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE > 500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE > 500 HP that operate 24 hours or less per calendar year. <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup>  b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and 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; <sup>1</sup>  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.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
7. Non-emergency, non-black start 4SLB stationary RICE ≤ 500 HP	<p>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;<sup>1</sup></p> <p>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</p> <p>c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.</p>	
8. Non-emergency, non-black start 4SLB remote stationary RICE > 500 HP	<p>a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;<sup>1</sup></p> <p>b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and</p> <p>c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.</p>	
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	<p>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;<sup>1</sup></p> <p>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</p> <p>c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.</p>	
11. Non-emergency, non-black start 4SRB remote stationary RICE > 500 HP	<p>a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;<sup>1</sup></p> <p>b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and</p> <p>c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.</p>	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
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; <sup>1</sup> 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.	

<sup>1</sup> 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.

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

[75 FR 51595, Aug. 20, 2010, as amended at 78 FR 6709, January 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. <sup>1</sup>
2. 4SRB stationary RICE ≥ 5,000 HP located at major sources.	Reduce formaldehyde emissions.	Conduct subsequent performance tests semiannually. <sup>1</sup>

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must . . .</b>
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. <sup>1</sup>
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.

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

[75 FR 51596, Aug. 20, 2010, as amended at 78 FR 6711, January 30, 2013]

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

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

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must . . .</b>	<b>Using . . .</b>	<b>According to the following requirements . . .</b>
1. 2SLB, 4SLB, and CI stationary RICE.	a. Reduce CO emissions.	i. Measure the O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR Part 60, appendix A, or ASTM Method D6522-00 (Reapproved 2005) <sup>a, c</sup>	(a) Measurements to determine O <sub>2</sub> must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device.	(1) ASTM D6522-00 (2005) <sup>a, b, c</sup> or Method 10 of 40 CFR part 60, appendix A.	(a) The CO concentration must be at 15 percent O <sub>2</sub> , dry basis.
2. 4SRB stationary RICE.	a. Reduce formaldehyde emissions.	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i).	(a) Sampling sites must be located at the inlet and outlet of the control device.

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

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03. <sup>a</sup>	(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 formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03, <sup>a</sup> provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130.	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE.	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00 (2005), <sup>a</sup> <sup>c</sup> Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03. <sup>a</sup>	(a) CO Concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour longer runs.

<sup>a</sup> Incorporated by reference, see 40 CFR 63.14. You may also obtain copies from University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

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

<sup>c</sup> ASTM-D6522-00 (2005) may be used to test both CI and SI stationary RICE.

[75 FR 51597, Aug. 20, 2010, as amended at 78 FR 6711, January 30, 2013]

**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 . . .
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For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
<p>1. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP.</p>	<p>a. Reduce CO emissions and using oxidation catalyst, and using a CPMS.</p>	<p>i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and</p> <p>ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and</p> <p>iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.</p>
<p>2. Non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP.</p>	<p>a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS.</p>	<p>i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and</p> <p>ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and</p> <p>iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.</p>
<p>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP.</p>	<p>a. Reduce CO emissions and not using oxidation catalyst.</p>	<p>i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and</p> <p>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</p> <p>iii. You have recorded the approved operating parameters (if any) during the initial performance test.</p>

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
<p>4. Non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP.</p>	<p>a. Limit the concentration of CO, and not using oxidation catalyst.</p>	<p>i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and</p> <p>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</p> <p>iii. You have recorded the approved operating parameters (if any) during the initial performance test.</p>
<p>5. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP.</p>	<p>a. Reduce CO emissions, and using a CEMS.</p>	<p>i. You have installed a CEMS to continuously monitor CO and either O<sub>2</sub> or CO<sub>2</sub> at both the inlet and outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and</p> <p>ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and</p> <p>iii. The average reduction of CO calculated using § 63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.</p>

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
<p>6. Non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP.</p>	<p>a. Limit the concentration of CO, and using a CEMS.</p>	<p>i. You have installed a CEMS to continuously monitor CO and either O<sub>2</sub> or CO<sub>2</sub> at the outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and</p> <p>ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and</p> <p>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.</p>
<p>7. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP.</p>	<p>a. Reduce formaldehyde emissions and using NSCR.</p>	<p>i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and</p> <p>ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and</p> <p>iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.</p>

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
<p>8. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP.</p>	<p>a. Reduce formaldehyde emissions and not using NSCR</p>	<p>i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and</p> <p>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</p> <p>iii. You have recorded the approved operating parameters (if any) during the initial performance test.</p>
<p>9. New or reconstructed non-emergency stationary RICE &gt;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 &gt;500 HP located at a major source of HAP.</p>	<p>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR.</p>	<p>i. The average formaldehyde concentration, corrected to 15 percent O<sub>2</sub>, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and</p> <p>ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and</p> <p>iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.</p>
<p>10. New or reconstructed non-emergency stationary RICE &gt;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 &gt;500 HP located at a major source of HAP.</p>	<p>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR.</p>	<p>i. The average formaldehyde concentration, corrected to 15 percent O<sub>2</sub>, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and</p> <p>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</p> <p>iii. You have recorded the approved operating parameters (if any) during the initial performance test.</p>

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
11. Existing non-emergency stationary RICE $100 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency stationary CI RICE $300 < \text{HP} \leq 500$ 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.
12. Existing non-emergency stationary RICE $100 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency stationary CI RICE $300 < \text{HP} \leq 500$ located at an area source of HAP.	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust.	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
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 <sub>2</sub> ;  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 <sub>2</sub> , 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.

**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:

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must demonstrate continuous compliance by . . .</b>
<p>1. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE &gt;500 HP located at a major source of HAP.</p>	<p>a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS.</p>	<p>i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved<sup>a</sup>; and</p> <p>ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>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.</p>
<p>2. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE &gt;500 HP located at a major source of HAP.</p>	<p>a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS.</p>	<p>i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved a; and</p> <p>ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
<p>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP.</p>	<p>a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS.</p>	<p>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</p> <p>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</p> <p>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.</p>
<p>4. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP.</p>	<p>a. Reduce formaldehyde emissions and using NSCR.</p>	<p>i. Collecting the catalyst inlet temperature data according to § 63.6625(b); and</p> <p>ii. Reducing these data to 4-hour rolling averages; and</p> <p>iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>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.</p>
<p>5. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP.</p>	<p>a. Reduce formaldehyde emissions and not using NSCR.</p>	<p>i. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and</p> <p>ii. Reducing these data to 4-hour rolling averages; and</p> <p>iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
<p>6. Non-emergency 4SRB stationary RICE with a brake HP <math>\geq 5,000</math> located at a major source of HAP.</p>	<p>a. Reduce formaldehyde emissions.</p>	<p>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<sup>a</sup></p>
<p>7. New or reconstructed non-emergency stationary RICE &gt;500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE <math>250 \leq \text{HP} \leq 500</math> located at a major source of HAP.</p>	<p>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR.</p>	<p>i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit<sup>a</sup>; and                      ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and                      iii. Reducing these data to 4-hour rolling averages; and                      iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and                      v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>
<p>8. New or reconstructed non-emergency stationary RICE &gt;500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE <math>250 \leq \text{HP} \leq 500</math> located at a major source of HAP.</p>	<p>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR.</p>	<p>i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit<sup>a</sup>; and                      ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and                      iii. Reducing these data to 4-hour rolling averages; and                      iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must demonstrate continuous compliance by . . .</b>
<p>9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE &lt;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 nonemergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE &gt;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 &gt;500 HP located at an area source of HAP that are remote stationary RICE.</p>	<p>a. Work or Management practices.</p>	<p>i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or</p> <p>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.</p>

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must demonstrate continuous compliance by . . .</b>
<p>10. Existing stationary CI RICE &gt;500 HP that are not limited use stationary RICE.</p>	<p>a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst.</p>	<p>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</p> <p>ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>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.</p>
<p>11. Existing stationary CI RICE &gt;500 HP that are not limited use stationary RICE.</p>	<p>a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst.</p>	<p>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</p> <p>ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must demonstrate continuous compliance by . . .</b>
<p>12. Existing limited use CI stationary RICE &gt;500 HP.</p>	<p>a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst.</p>	<p>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</p> <p>ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p> <p>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.</p>
<p>13. Existing limited use CI stationary RICE &gt;500 HP.</p>	<p>a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst.</p>	<p>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</p> <p>ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and</p> <p>iii. Reducing these data to 4-hour rolling averages; and</p> <p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
<p>14. Existing non-emergency 4SLB stationary RICE &gt;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.</p>	<p>a. Install an oxidation catalyst</p>	<p>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<sub>2</sub>; and either</p> <p>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</p> <p>iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.</p>
<p>15. Existing non-emergency 4SRB stationary RICE &gt;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.</p>	<p>a. Install NSCR</p>	<p>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<sub>2</sub>, or the average reduction of emissions of THC is 30 percent or more; and either</p> <p>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</p> <p>iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.</p>

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

**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 ...
<p>1. Existing non-emergency, nonblack start stationary RICE 100≤HP≤500 located at a major source of HAP;</p> <p>existing non-emergency, non-black start stationary CI RICE &gt;500 HP located at a major source of HAP;</p> <p>existing non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP;</p> <p>existing non-emergency, nonblack start stationary CI RICE &gt;300 HP located at an area source of HAP;</p> <p>new or reconstructed non-emergency stationary RICE &gt;500 HP located at a major source of HAP; and</p> <p>new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP.</p>	<p>Compliance report</p>	<p>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;</p> <p>or</p> <p>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</p> <p>c. If you had a malfunction during the reporting period, the information in § 63.6650(c)(4).</p>	<p>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</p> <p>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.</p> <p>i. Semiannually according to the requirements in § 63.6650(b).</p> <p>i. Semiannually according to the requirements in § 63.6650(b).</p>
<p>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.</p>	<p>Report</p>	<p>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</p>	<p>i. Annually, according to the requirements in § 63.6650.</p>
		<p>b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and</p>	<p>i. See item 2.a.i.</p>

For each ...	You must submit a ...	The report must contain ...	You must submit the report ...
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.
3. Existing non-emergency, nonblack 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).
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).

[75 FR 51603, Aug. 20, 2010, as amended at 78 FR 6719, January 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]		

<b>General provisions citation</b>	<b>Subject of citation</b>	<b>Applies to subpart</b>	<b>Explanation</b>
§ 63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§ 63.6(c)(1)-(2)	Compliance dates for existing sources	Yes.	
§ 63.6(c)(3)-(4)	[Reserved]		
§ 63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§ 63.6(d)	[Reserved]		
§ 63.6(e)	Operation and maintenance	No.	
§ 63.6(f)(1)	Applicability of standards	No.	
§ 63.6(f)(2)	Methods for determining compliance	Yes.	
§ 63.6(f)(3)	Finding of compliance	Yes.	
§ 63.6(g)(1)-(3)	Use of alternate standard	Yes.	
§ 63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§ 63.6(i)	Compliance extension procedures and criteria	Yes.	
§ 63.6(j)	Presidential compliance exemption	Yes.	
§ 63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§ 63.6610, 63.6611, and 63.6612.
§ 63.7(a)(3)	CAA section 114 authority	Yes.	
§ 63.7(b)(1)	Notification of performance test	Yes	Except that § 63.7(b)(1) only applies as specified in § 63.6645.
§ 63.7(b)(2)	Notification of rescheduling	Yes	Except that § 63.7(b)(2) only applies as specified in § 63.6645.
§ 63.7(c)	Quality assurance/test plan	Yes	Except that § 63.7(c) only applies as specified in § 63.6645.
§ 63.7(d)	Testing facilities	Yes.	
§ 63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at § 63.6620.

<b>General provisions citation</b>	<b>Subject of citation</b>	<b>Applies to subpart</b>	<b>Explanation</b>
§ 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.
§ 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.

General provisions citation	Subject of citation	Applies to subpart	Explanation
		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.

General provisions citation	Subject of citation	Applies to subpart	Explanation
		Except that § 63.9(g) only applies as specified in § 63.6645.	
§ 63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. § 63.9(h)(4) is reserved.
			Except that § 63.9(h) only applies as specified in § 63.6645.
§ 63.9(i)	Adjustment of submittal deadlines	Yes.	
§ 63.9(j)	Change in previous information	Yes.	
§ 63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§ 63.10(b)(1)	Record retention	Yes.	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.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 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, January 30, 2013]

**Appendix A to Subpart ZZZZ of Part 63—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<sub>2</sub>) 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<sub>2</sub>).

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 <sub>2</sub> )	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<sub>2</sub>, 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub>; 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<sub>2</sub>. 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<sub>2</sub>) is acceptable for calibration of the O<sub>2</sub> cell. If needed, any lower percentage O<sub>2</sub> calibration gas must be a mixture of O<sub>2</sub> 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<sub>2</sub> Calibration Gas Concentration.*

Select an O<sub>2</sub> 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<sub>2</sub>. When the average exhaust gas O<sub>2</sub> readings are above 6 percent, you may use dry ambient air (20.9 percent O<sub>2</sub>) for the up-scale O<sub>2</sub> 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<sub>2</sub>).

## 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<sub>2</sub> concentrations.

**8.3 EC Cell Rate.** Maintain the EC cell sample flow rate so that it does not vary by more than  $\pm 10$  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  $\pm 3$  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<sub>2</sub> 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  $\pm 3$  percent of the up-scale gas value or  $\pm 1$  ppm, whichever is less restrictive, for the CO channel and less than or equal to  $\pm 0.3$  percent O<sub>2</sub> for the O<sub>2</sub> 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  $\pm 5$  percent or  $\pm 1$  ppm for CO or  $\pm 0.5$  percent O<sub>2</sub>, 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  $\pm 2$  percent or  $\pm 1$  ppm for CO or  $\pm 0.5$  percent O<sub>2</sub>, 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<sub>2</sub> 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  $\pm 2$  percent, or  $\pm 1$  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  $\pm 2$  percent or  $\pm 1$  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<sub>2</sub> gas standards that are generally recognized as representative of diesel-fueled engine NO and NO<sub>2</sub> 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<sub>2</sub> interference response should be less than or equal to  $\pm 5$  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  $\pm 3$  percent or  $\pm 1$  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: 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	O2	CO	O2	CO	O2	CO	O2	CO			
Sample Cond. Phase											
Measured Data Phase											
Mean											
Refresh Phase											

[78 FR 6721, January 30, 2013]

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

Technical Support Document (TSD) for a Registration Revision

**Source Description and Location**

Source Name: Firestone Building Products Company  
 Source Location: 3525 South Arlington Avenue, Indianapolis, Indiana 46203  
 County: Marion County  
 SIC Code: 2952 (Asphalt Felts and Coatings)  
 Registration No.: 097-30565-00140  
 Registration Issuance Date: June 30, 2011  
 Registration Revision No.: 097-32754-00140  
 Permit Reviewer: Laura Spriggs

On January 18, 2013, the Office of Air Quality (OAQ) received an application from Firestone Building Products Company related to a modification to an existing stationary asphalt roofing material manufacturing operation.

**Existing Approvals**

The source has been operating under Registration No. 097-30565-00140, issued on June 30, 2011.

**County Attainment Status**

The source is located in Marion County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of Indianapolis bounded by 11 <sup>th</sup> Street on the north; Capitol Avenue on the west; Georgia Street on the south; and Delaware Street on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of Indianapolis and Marion County.
O <sub>3</sub>	Attainment effective November 8, 2007, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Attainment effective July 10, 2000, for the part of Franklin Township bounded by Thompson Road on the south; Emerson Avenue on the west; Five Points Road on the east; and Troy Avenue on the north. Attainment effective July 10, 2000, for the part of Wayne Township bounded by Rockville Road on the north; Girls School Road on the east; Washington Street on the south; and Bridgeport Road on the west. The remainder of the county is not designated.
<sup>1</sup> Attainment effective October 18, 2000, for the 1-hour ozone standard for the Indianapolis area, including Marion County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour designation was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM <sub>2.5</sub> .	

- (a) **Ozone Standards**  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM<sub>2.5</sub>**  
 Marion County has been classified as nonattainment for PM<sub>2.5</sub> in 70 FR 943 dated January 5, 2005. On May 8, 2008, U.S. EPA promulgated specific New Source Review rules for PM<sub>2.5</sub> emissions. These rules became effective on July 15, 2008. Therefore, direct PM<sub>2.5</sub>, SO<sub>2</sub>, and NOx emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.
- (c) **Other Criteria Pollutants**  
 Marion County has been classified as attainment or unclassifiable in Indiana for CO, PM10, NO<sub>2</sub>, and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

**Fugitive Emissions**

The fugitive emissions of criteria pollutants, hazardous air pollutants, and greenhouse gases are counted toward the determination of 326 IAC 2-5.5 (Registrations) applicability.

**Status of the Existing Source**

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)									
	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
EU-01 - Asphalt Roofing Line	2.36	0.51	0.51	--	--	15.35	--	--	--	--
EU-02 - Storage Silo	5.61	1.93	0.00	--	--	--	--	--	--	--
EU-07 Storage Silo	3.67	1.26	1.26	--	--	--	--	--	--	--
Granule Treatment	4.88	1.23	1.23	--	--	--	--	--	--	--
Storage Tanks	--	--	--	--	--	0.03	--	--	--	--
EU-03, EU-08 Natural Gas Units	0.06	0.23	0.23	0.02	2.98	0.16	2.50	<b>3,525.3</b>	5.62E-02	5.36E-02 (Hexane)
Seasonal Space Heaters (Number = 14)	0.13	0.51	0.51	0.04	6.66	0.37	5.59	<b>7,880.1</b>	1.26E-01	1.20E-01 (Hexane)

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Revision (tons/year)									
	PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
<b>Total PTE of Entire Source</b>	<b>16.71</b>	<b>5.67</b>	<b>5.67</b>	<b>0.06</b>	<b>9.64</b>	<b>15.91</b>	<b>8.09</b>	<b>11,405.5</b>	1.82E-01	<b>1.73E-01 (Hexane)</b>
Registration Levels**	25	25	25	25	25	25	100	100,000	25	10

negl. = negligible  
 These emissions are based upon the technical support document for Registration No. 097-30565-00140, issued on June 30, 2011. Additionally, GHG calculations have been performed, as shown in Appendix A of the TSD.  
 \*\*The 100,000 CO<sub>2</sub>e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

**Description of Proposed Revision**

The Office of Air Quality (OAQ) has reviewed an application, submitted by Firestone Building Products Company on January 18, 2013, relating to the inclusion of an emergency generator into the permit. The generator was manufactured and installed in 2004 and is now being permitted. The generator is described as follows:

One (1) natural gas-fired emergency spark-ignition (4SRB) generator, identified as EU-15, permitted in 2013, installed in 2004, with a maximum rating of 23 horsepower, using no controls and venting indoors.

Additionally, fugitive emissions from paved roads were not previously addressed. Emissions calculations for these are now included in Appendix A of the TSD.

**Enforcement Issues**

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

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – Registration Revision**

The following table is used to determine the appropriate permit level under 326 IAC 2-5.5-6. This table reflects the PTE before controls of the proposed revision.

Process/ Emission Unit	PTE of Proposed Amendment (tons/year)									
	PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e	Total HAPs	Worst Single HAP

Process/ Emission Unit	PTE of Proposed Amendment (tons/year)									
	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	CO	GHGs as CO <sub>2</sub> e	Total HAPs	Worst Single HAP
Emergency Generator (EU-15)	4.92E-04	1.00E-03	1.00E-03	3.04E-05	1.14E-01	1.53E-03	1.93E-01	5.98	1.66E-03	1.06E-03 (formaldehyde)
Paved Roads (Fugitive Emissions)	5.81	1.16	0.29	--	--	--	--	--	--	--
Total PTE of Proposed Revision	5.81	1.16	0.29	3.04E-05	0.11	1.53E-03	0.19	5.98	1.66E-03	1.06E-03 (formaldehyde)

This Registration is being revised through a Registration Revision pursuant to 326 IAC 2-5.5.6(g), because the revision involves the permitting of emission units with potential to emit (PTE) PM greater than the thresholds in 326 IAC 2-5.5.6(d)(10) and pursuant to 326 IAC 2-5.5.6(g), because the revision involves the incorporation of 40 CFR 63, Subpart ZZZZ, which is not described in 326 IAC 2-5.5.6(d) (Registration Administrative Amendments).

**PTE of the Entire Source After Issuance of the Registration Revision**

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units.

Process/ Emission Unit	Potential To Emit of the Entire Source with the Revision (tons/year)									
	PM	PM10*	PM2.5	SO <sub>2</sub>	NOx	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
EU-01 - Asphalt Roofing Line	2.36	0.51	0.51	--	--	15.35	--	--	--	--
EU-02 - Storage Silo	5.61	1.93	<del>0.00</del> <b>1.93</b>	--	--	--	--	--	--	--
EU-07 Storage Silo	3.67	1.26	1.26	--	--	--	--	--	--	--
Granule Treatment	4.88	1.23	1.23	--	--	--	--	--	--	--
Storage Tanks	--	--	--	--	--	<del>0.03</del> <b>0.04</b>	--	--	--	--
EU-03, EU-08 Natural Gas Units	0.06	<del>0.23</del> <b>0.22</b>	<del>0.23</del> <b>0.22</b>	0.02	<del>2.98</del> <b>2.92</b>	0.16	<del>2.50</del> <b>2.45</b>	<b>3,525.3</b>	<del>5.62E-02</del> <b>5.51E-02</b>	<del>5.36E-02</del> <b>5.26E-02</b> (Hexane)
Seasonal Space Heaters (Number = 14)	<del>0.13</del> <b>0.12</b>	<del>0.51</del> <b>0.50</b>	<del>0.51</del> <b>0.50</b>	0.04	<del>6.66</del> <b>6.53</b>	<del>0.37</del> <b>0.36</b>	<del>5.59</del> <b>5.48</b>	<b>7,880.1</b>	<del>4.26E-01</del> <b>1.23E-01</b>	<del>4.20E-01</del> <b>1.17E-01</b> (Hexane)
Emergency Generator (EU-15)	4.92E-04	1.00E-03	1.00E-03	3.04E-05	1.14E-01	1.53E-03	1.93E-01	<b>5.98</b>	1.66E-03	1.06E-03 (formaldehyde)
Paved Roads (Fugitive Emissions)	5.81	1.16	0.29	--	--	--	--	--	--	--

Process/ Emission Unit	Potential To Emit of the Entire Source with the Revision (tons/year)									
	PM	PM10*	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
Total PTE of Entire Source	46.74 <b>22.52</b>	5.67 <b>6.81</b>	5.67 5.93	0.06	9.64 <b>9.56</b>	15.94 <b>15.90</b>	8.09 <b>8.13</b>	11,405.5 <b>11,411.4</b>	0.18	0.173 <b>0.17</b> (Hexane)
Registration Levels	25	25	25	25	25	25	100	100,000	25	10
negl. = negligible *Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". **The 100,000 CO <sub>2</sub> e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD. Note: Revisions in PTE to existing units are based on the calculation methodology and not a change in the units themselves.										

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. *Note: The table below was generated from the above table, with bold text un-bolded and strikethrough text deleted.*

Process/ Emission Unit	Potential To Emit of the Entire Source with the Revision (tons/year)									
	PM	PM10*	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
EU-01 - Asphalt Roofing Line	2.36	0.51	0.51	--	--	15.35	--	--	--	--
EU-02 - Storage Silo	5.61	1.93	1.93	--	--	--	--	--	--	--
EU-07 Storage Silo	3.67	1.26	1.26	--	--	--	--	--	--	--
Granule Treatment	4.88	1.23	1.23	--	--	--	--	--	--	--
Storage Tanks	--	--	--	--	--	0.04	--	--	--	--
EU-03, EU-08 Natural Gas Units	0.06	0.22	0.22	0.02	2.92	0.16	2.45	3,525.3	5.51E-02	5.26E-02 (Hexane)
Seasonal Space Heaters (Number = 14)	0.12	0.50	0.50	0.04	6.53	0.36	5.48	7,880.1	1.23E-01	1.17E-01 (Hexane)
Emergency Generator (EU-15)	4.92E-04	1.00E-03	1.00E-03	3.04E-05	1.14E-01	1.53E-03	1.93E-01	5.98	1.66E-03	1.06E-03 (formaldehyde)
Paved Roads (Fugitive Emissions)	5.81	1.16	0.29	--	--	--	--	--	--	--
<b>Total PTE of Entire Source</b>	<b>22.52</b>	<b>6.81</b>	<b>5.93</b>	<b>0.06</b>	<b>9.56</b>	<b>15.90</b>	<b>8.13</b>	<b>11,411.4</b>	<b>0.18</b>	<b>0.17 (Hexane)</b>
Registration Levels	25	25	25	25	25	25	100	100,000	25	10

Process/ Emission Unit	Potential To Emit of the Entire Source with the Revision (tons/year)									
	PM	PM10*	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
negl. = negligible *Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". **The 100,000 CO <sub>2</sub> e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.										

- (a) This revision will not change the registration status of the source, because the uncontrolled/unlimited potential to emit of PM, PM10, and VOC from the entire source will still be within the ranges listed in 326 IAC 2-5.5-1(b)(1) and the PTE of all other regulated criteria pollutants will still be less than the ranges listed in 326 IAC 2-5.5-1(b)(1). Therefore, the source will still be subject to the provisions of 326 IAC 2-5.5 (Registrations).
- (b) This revision will not change the minor status of the source, because the uncontrolled/unlimited potential to emit of any single HAP will still be less than ten (10) tons per year and the PTE of a combination of HAPs will still be less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.
- (c) This revision will not change the minor status of the source, because the uncontrolled/unlimited potential to emit greenhouse gases (GHGs) will still be less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

**Federal Rule Applicability Determination**

The federal rules applicable to the existing emission units at this source will not change as a result of this revision.

The federal rule applicability for this revision is as follows:

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60.4230, Subpart JJJJ (326 IAC 12), are not included for the emergency generator because the source commenced construction prior to June 12, 2006. Therefore, the emergency generator is not subject to Subpart JJJJ.
- (b) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (c) The emergency generator is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63.6580, Subpart ZZZZ, which is incorporated by reference as 326 IAC 20-82, because the emergency generator is a reciprocating internal combustion engine located at an area source of HAPs.

The unit subject to this rule includes the following:

One (1) natural gas-fired emergency spark-ignition (4SRB) generator, identified as EU-15, permitted in 2013, installed in 2004, with a maximum rating of 23 horsepower, using no controls and venting indoors.

Pursuant to 40 CFR 63.6590(a)(1)(iii), the generator is considered an existing affected source because construction commenced prior to June 12, 2006.

The entire rule is included as Attachment C to the permit. Applicable portions of the NESHAP are the following:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585(a), (c), (d)
- (3) 40 CFR 63.6590(a)(1)(iii)
- (4) 40 CFR 63.6595(a)(1), (b), (c)
- (5) 40 CFR 63.6603(a)
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6625(e)(3), (f), (h), (j)
- (8) 40 CFR 63.6640(a), (b), (e), (f)(1), (f)(2), (f)(4)
- (9) 40 CFR 63.6645(a)(5)
- (10) 40 CFR 63.6655 (a), (e)(3), (f)(2)
- (11) 40 CFR 63.6660
- (12) 40 CFR 63.6665
- (13) 40 CFR 63.6670
- (14) 40 CFR 63.6675
- (15) Table 2d to Subpart ZZZZ of Part 63 (item 5)
- (16) Table 6 to Subpart ZZZZ of Part 63, (item 9)
- (17) Table 8 to Subpart ZZZZ of Part 63

Pursuant to 40 CFR 63.6595(a)(1), the source must comply with the applicable requirements no later than October 13, 2013.

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the emergency generator except as otherwise specified in 40 CFR 63, Subpart ZZZZ.

- (d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

#### Compliance Assurance Monitoring (CAM)

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

<b>State Rule Applicability Determination</b>
---

The state rules applicable to the existing emission units at this source will not change as a result of this revision.

The following state rules are applicable to the proposed revision:

- (a) 326 IAC 2-5.5 (Registrations)  
Registration applicability is discussed under the Permit Level Determination – Registration section above.

- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new units is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.
- (c) 326 IAC 2-6 (Emission Reporting)  
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 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 thirty percent (30%) 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.
- (e) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)  
The emergency generator is not subject to the requirements of 326 IAC 6-3 because the generator is not a manufacturing process.
- (f) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
Due to this revision, the source is subject to the requirements of 326 IAC 6-4, because the paved roads have the potential to emit fugitive particulate emissions. 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.
- (g) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year.
- (h) 326 IAC 6.5 (Particulate Matter Limitations Except Lake County)  
The source is located in Marion County, is not specifically identified in 326 IAC 6.5-6, and has the unlimited potential to emit particulate of greater than ten (10) tons per year. Therefore, the source is subject to the requirements of 326 IAC 6.5 because the actual PM emissions from the source are not limited to less than ten (10) tons per year. However, pursuant to 326 IAC 6.5-1-1(b), particulate limitations shall not be established for combustion units that burn only natural gas at sources or facilities identified in 326 IAC 6.5-2 through 326 IAC 6.5-10, as long as the units continue to burn only natural gas. The emergency generator (EU-15) is designed to fire natural gas; therefore, it is not subject to the requirements of 326 IAC 6.5.
- (i) 326 IAC 8-1-6 (General Reduction Requirements for New Facilities)  
The emergency generator is not subject to the requirements of 326 IAC 8-1-6 because it does not have potential VOC emissions greater than twenty-five (25) tons per year.
- (j) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.

- (k) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.

<b>Proposed Changes</b>
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The following is a summary of changes that have been made to Registration No. 097-30565-00140. Deleted language appears as ~~strike through~~ text and new language appears as **bold** text:

- (1) The descriptions for the emergency generator (EU-15) and for paved roads have been included in A.2 of the permit.
- (2) The citation of 326 IAC 6.5-6 has been removed from Conditions D.1.1 and D.2.1 since the source is not specifically listed in 326 IAC 6.5-6.
- (3) To clarify that the source is capable of compliance with particulate limitations by operating the respective control devices, Conditions D.1.3 and D.2.3 have been revised.
- (4) Compliance monitoring conditions (D.1.4 and D.1.5) have been revised for clarity.
- (5) The emission limitation in Condition D.3.1 was revised to reflect 326 IAC 6-2-4(a), which states that for Q less than 10 MMBtu/hr, Pt shall not exceed 0.6 lb/MMBtu, instead of relying on the equation to determine Pt.
- (6) The testing requirements in Conditions E.1.3 and E.2.3 were revised to clarify that testing shall be repeated at least "once" every five years.
- (7) Condition E.2.1 was revised to specify the citation related to the General Provisions in 40 CFR 63, Subpart AAAAAAA.
- (8) The compliance date listed in Condition E.2.2 was removed since this date has passed.
- (9) The applicable provisions listed in Condition E.2.2 have been renumbered for consistency.
- (10) Section E.3 has been added to the permit to incorporate the applicable provisions of 40 CFR 63, Subpart ZZZZ for the emergency generator.

The permit has been revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary

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

\* \* \*

- (j) **One (1) natural gas-fired emergency spark-ignition (4SRB) generator, identified as EU-15, permitted in 2013, installed in 2004, with a maximum rating of 23 horsepower, using no controls and venting indoors.**

**Under 40 CFR 63, Subpart ZZZZ, this is considered an existing affected source.**

- (k) **Paved roads.**

\* \* \* \* \*

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D.1.1 Particulate Emissions Limitations Except Lake County [326 IAC 6.5-1-2][~~326 IAC 6.5-6~~]

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\* \* \*

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

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A Preventive Maintenance Plan is required for Line 1 operations (EU-01) and control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this ~~c~~Condition.

Compliance Determination Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

D.1.3 Compliance Determination

---

In order to **ensure** ~~compliance~~ with Condition D.1.1, the Mist Collector MME, identified as CE-01, shall operate at all times that the asphalt roofing line EU-01 is operating.

Compliance Monitoring Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

D.1.4 Visible Emissions Notations

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(a) \* \* \*

(b) \* \* \*

(c) \* \* \*

(d) \* \* \*

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

D.1.5 Monsanto Mist Eliminator Parameter Monitoring

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(a) The Permittee shall record the pressure drop across the Monsanto Mist Eliminator (CE-01) used in conjunction with Line 1 at least once per day when the roofing line is in operation. When for any one reading, the pressure drop across the Monsanto Mist Eliminator is outside the normal range of ~~three (3) and twelve (12) inches of water, or a range established during the most recent stack test~~, the Permittee shall take a reasonable response. **The normal range for this unit is a pressure drop between 3.0 and 12.0 inches of water, unless a different upper-bound or lower-bound value for this range is determined during the latest stack test.** Section C - Response to Excursions or Exceedences~~-~~ 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.

(b) The instrument used for determining the pressure shall **comply with Section C - Instrument Specifications, of this permit, shall** be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months. ~~Section C - Instrument Specifications contains the Registrant's obligation with regard to the instrument specifications required by this condition.~~

\* \* \* \* \*

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D.2.1 Particulate Emissions Limitations Except Lake County [326 IAC 6.5-1-2][~~326 IAC 6.5-6~~]

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(a) \* \* \*

(b) Pursuant to 326 IAC 6.5-1-2, particulate emissions from the sand storage silo, EU-07, shall not exceed 0.03 grain per dry standard cubic foot (dscf).

(c) \* \* \*

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#### D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]

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\* \* \*

Compliance Determination Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

#### D.2.3 Compliance Determination

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- (a) In order to **ensure compliance** with Condition D.2.1(a), the dust collector, identified as CE-04, shall operate at all times that the storage silo EU-02 is operating.
- (b) In order to **ensure compliance** with Condition D.2.1(b), the dust collector, identified as CE-07, shall operate at all times that the sand storage silo EU-07 is operating.
- (c) In order to **ensure compliance** with Condition D.2.1(c), the cartridge filter system, identified as CE-06, shall operate at all times that the granule treatment process is operating.

\* \* \* \* \*

#### D.3.1 Particulate Matter Emissions (PM) [326 IAC 6-2-4]

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Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Indirect Heating), particulate emissions from the EU-03 heater shall be limited to 0.68 pounds per million British thermal units (lbs/MMBtu) **heat input**. ~~based on the following equation:~~

$$Pt = 1.09 / Q^{0.26}$$

~~Where:~~

~~Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.  
Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used. Q for EU-03 6.0 MMBtu/hr.~~

\* \* \* \* \*

#### E.1.3 Testing Requirements [326 IAC 2-1.1-11]

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The Permittee shall perform the stack testing as required under NSPS 40 CFR 60, Subpart UU, utilizing methods as approved by the Commissioner to document compliance with Condition E.1.2. These tests shall be repeated at least **once** every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

\* \* \* \* \*

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

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Pursuant to 40 CFR 63.11565, ~~Subpart AAAAAAA (7A)~~, the Registrant shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, **as specified in Table 5 of 40 CFR 63, Subpart AAAAAAA** for the

asphalt roofing line, EU-01, in accordance with schedule in 40 CFR 63 Subpart AAAAAAA.

**E.2.2 National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Area Sources of Asphalt Processing and Asphalt Roofing Manufacturing [40 CFR Part 63, Subpart AAAAAAA [326 IAC 20-1]**

The Registrant, which engages in the manufacture of asphalt roofing materials, shall comply with the following provisions of 40 CFR Part 63, Subpart AAAAAAA (included as Attachment B of this permit), ~~with a compliance date of December 2, 2009:~~

Applicable portions of the NESHAP are the following:

- (a1) 40 CFR 63.11559
- (b2) 40 CFR 63.11560(a)
- (c) 40 CFR 63.11561(b) and (c)
- (d) 40 CFR 63.11562
- (e) 40 CFR 63.11563
- (f) 40 CFR 63.11564
- (g) 40 CFR 63.11565
- (h) 40 CFR 63.11566
- (i) 40 CFR 63.11567
- (j) Tables 2, 3, 4, and 5

**E.2.3 Testing Requirements [326 IAC 2-1.1-11]**

The Permittee shall perform the stack testing as required under NESHAP 40 CFR 63, Subpart AAAAAAA, utilizing methods as approved by the Commissioner to document compliance with Condition E.2.2. These tests shall be repeated at least **once** every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

**SECTION E.3**

**OPERATION CONDITIONS**

**Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:**

- (j) **One (1) natural gas-fired emergency spark-ignition (4SRB) generator, identified as EU-15, permitted in 2013, installed in 2004, with a maximum rating of 23 horsepower, using no controls and venting indoors.**

**Under 40 CFR 63, Subpart ZZZZ, this is considered an existing affected source.**

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

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

Pursuant to 40 CFR 63.6665, the Registrant shall comply with the provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 8 of 40 CFR 63, Subpart ZZZZ, in accordance with the schedule in 40 CFR 63, Subpart ZZZZ.

**E.3.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR 63, Subpart ZZZZ] [326 IAC 20-82]**

**The Registrant, which operates a stationary reciprocating internal combustion engine shall comply with the following provisions of 40 CFR 63, Subpart ZZZZ (included as Attachment C of this permit) with a compliance date of October 13, 2013:**

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585(a), (c), (d)
- (3) 40 CFR 63.6590(a)(1)(iii)
- (4) 40 CFR 63.6595(a)(1), (b), (c)
- (5) 40 CFR 63.6603(a)
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6625(e)(3), (f), (h), (j)
- (8) 40 CFR 63.6640(a), (b), (e), (f)(1), (f)(2), (f)(4)
- (9) 40 CFR 63.6645(a)(5)
- (10) 40 CFR 63.6655 (a), (e)(3), (f)(2)
- (11) 40 CFR 63.6660
- (12) 40 CFR 63.6665
- (13) 40 CFR 63.6670
- (14) 40 CFR 63.6675
- (15) Table 2d to Subpart ZZZZ of Part 63 (item 5)
- (16) Table 6 to Subpart ZZZZ of Part 63, (item 9)
- (17) Table 8 to Subpart ZZZZ of Part 63

#### Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on January 18, 2013.

The construction and operation of this proposed amendment shall be subject to the conditions of the attached proposed Registration Administrative Amendment No. 097-32754-00140. The staff recommends to the Commissioner that this Registration Administrative Amendment be approved.

#### IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Laura Spriggs at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-5693 or toll free at 1-800-451-6027 extension 3-5693.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.in.gov/idem](http://www.in.gov/idem)

**Appendix A: Emission Calculations  
Summary**

Company Name: Firestone Building Products Company  
 Address: 3525 S. Arlington Avenue, Indianapolis, IN 46203  
 Registration Revision No.: 097-32754-00140  
 Reviewer: Laura Spriggs

**Potential to Emit**

<b>Emission Unit</b>	<b>PM</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>VOC</b>	<b>CO</b>	<b>GHGs (CO<sub>2</sub>e)</b>	<b>Total HAPs</b>	<b>Single HAP</b>	<b>Worst HAP</b>
EU-01 (Asphalt Roofing Line)	2.36	0.51	0.51	--	--	15.35	--	--	--	--	
EU-02 (Storage Silo)	5.61	1.93	1.93	--	--	--	--	--	--	--	
EU-07 (Storage Silo)	3.67	1.26	1.26	--	--	--	--	--	--	--	
Granule Treatment	4.88	1.23	1.23	--	--	--	--	--	--	--	
EU-03, EU-08 (Natural Gas Units)	0.06	0.22	0.22	0.02	2.92	0.16	2.45	3525.3	5.51E-02	5.26E-02	Hexane
Fourteen (14) seasonally used space heaters	0.12	0.50	0.50	0.04	6.53	0.36	5.48	7880.1	1.23E-01	1.17E-01	Hexane
Storage Tanks	--	--	--	--	--	0.04	--	--	--	--	
Emergency Generator (EU-15)	4.92E-04	1.00E-03	1.00E-03	3.04E-05	1.14E-01	1.53E-03	1.93E-01	5.98	1.66E-03	1.06E-03	Formaldehyde
Paved Roads	5.81	1.16	0.29	--	--	--	--	--	--	--	
<i>Total for EU-15 and Paved Roads</i>	<i>5.81</i>	<i>1.16</i>	<i>0.29</i>	<i>3.04E-05</i>	<i>0.11</i>	<i>1.53E-03</i>	<i>0.19</i>	<i>5.98</i>	<i>1.66E-03</i>	<i>1.06E-03</i>	<i>Formaldehyde</i>
<b>Source-wide Total After Revision</b>	<b>22.52</b>	<b>6.81</b>	<b>5.93</b>	<b>0.06</b>	<b>9.56</b>	<b>15.90</b>	<b>8.13</b>	<b>11,411.4</b>	<b>0.18</b>	<b>1.70E-01</b>	<i>Hexane</i>

**Appendix A: Emissions Calculations**  
**Asphalt Roofing Line EU-01**

Company Name: Firestone Building Products Company  
 Address: 3525 S. Arlington Avenue, Indianapolis, IN 46203  
 Registration Revision No.: 097-32754-00140  
 Reviewer: Laura Spriggs

Emission Unit ID	Emission Unit Description	Stack ID	Control Device	Control Efficiency	Max. throughput Asphalt Compound			Flow Rate		Temp. oF	AP-42 Em. Factor	VOC Site Specific Emission Factor**	PTE VOC (before control)			Max. throughput Limestone Filler			PM Emission Factor*	PTE PM (before control)			PTE PM (after control)
					lb/hr	ton/hr	ton/yr	acfm	scfm				lb/hr	lb/day	ton/yr	lb/hr	ton/hr	ton/yr		lb/hr	lb/day	ton/yr	
					%									lb/ton	lb/ton					lb/ton			
EU-01	Line 1 (EU-01)	1	Mist Eliminator MME	57.0%	22,603	11.30	99,001	10,000	8,013	114	N/A	0.31	3.50	84.08	15.35	13,461	6.73	58,959	0.08	0.54	12.92	2.36	1.01
													3.50	84.08	15.35					0.54	12.92	2.36	1.01

PM10/2.5 Emission Factor*	PTE PM10/PM2.5 (before control)			PTE PM10/PM2.5 (after control)
	lb/hr	lb/day	ton/yr	
lb/ton				
0.0174	0.12	2.81	0.51	0.22
	0.12	2.81	0.51	0.22

**Methodology**

\*Site specific emission factors for PM, PM10, and PM2.5 are from October, 2008 Stack Test.

\*\* Emission Factor for VOC is from existing permit, 097-23189-00140, requested by source, which is more conservative than latest stack test data from 10/2008.

PTE before control (lb/hour) = Maximum throughput (tons/year) x emission factor (lbs/ton) x 1 year/8760 hours

PTE before control (tons/year) = PTE before control (lbs/hour) x 8760 hours x 1 ton/2000 lbs

PTE after control (tons/year) = PTE before control (tons/year) x 1 - control efficiency (%)

**Appendix A: Emissions Calculations**  
**Storage Silos EU-02, EU-07**

Company Name: Firestone Building Products Company  
 Address: 3525 S. Arlington Avenue, Indianapolis, IN 46203  
 Registration Revision No.: 097-32754-00140  
 Reviewer: Laura Spriggs

Emission Unit	Emission Unit Description	Stack ID	Control Device	Control Efficiency	Maximum Throughput		AP-42 Emission Factors		PM PTE (before control)		PM PTE (after control)	PM-10, 2.5 PTE (before control)		PM-10, 2.5 PTE (after control)
					lbs/hr	tons/year	PM (lbs/ton)	PM-10 (lbs/ton)	lbs/hr	tons/year	tons/year	lbs/hr	tons/year	tons/year
2	Calcium Carbonate Silo	2	Baghouse	99%	3,560	15,593	0.72	0.48	1.28	5.61	0.021	0.85	1.93	0.019
7	Sand Silo	7	Baghouse	99%	2,330	10,205	0.72	0.48	0.84	3.67	0.014	0.56	1.26	0.013
										9.29	0.04	1.41	3.19	0.03

**Methodology**

Emission factors are derived from AP-42, Table 11.12-2 (Cement/fly ash Storage Silos)

PTE before control (lb/hour) = Maximum throughput (tons/year) x emission factor (lbs/ton) x 1 year/8760 hours

PTE before control (tons/year) = PTE before control (lbs/hour) x 8760 hours x 1 ton/2000 lbs

PTE after control (tons/year) = PTE before control (tons/year) x 1 - control efficiency (%)

**Appendix A: Emission Calculations**  
**Granule Treatment System**

Company Name: Firestone Building Products Company  
Address: 3525 S. Arlington Avenue, Indianapolis, IN 46203  
Registration Revision No.: 097-32754-00140  
Reviewer: Laura Spriggs

Emission Unit	Control Device	Control Efficiency	Maximum Throughput		*AP-42 Emission Factors		PM PTE (before control)		PM PTE (after control)	PM-10/2.5 PTE (before control)		PM-10 PTE (after control)
			lbs/hr	tons/year	PM (lbs/ton)	PM10 (lbs/ton)	PM (lbs/hr)	PM (tons/year)	tons/year	lbs/hr	tons/year	tons/year
Bulk bag to bucket elevator	CE-06	99%	4,000	17,520	0.0021	0.00099	0.00	0.018	0.0002	0.00	0.01	0.000
bucket elevator to elevated storage		99%	4,000	17,520	0.0021	0.00099	0.00	0.018	0.0002	0.00	0.01	0.000
Elevated Storage to blender		99%	4,000	17,520	0.544	0.134	1.09	4.77	0.0477	0.27	1.17	0.012
Mixer to elevated storage		99%	4,000	17,520	0.0021	0.00099	0.00	0.018	0.0002	0.00	0.01	0.000
Elevated storage to bucket Elevator		99%	4,000	17,520	0.0021	0.00099	0.00	0.018	0.0002	0.00	0.01	0.000
Drying		99%	4,000	17,520	0.0021	0.00099	0.00	0.018	0.0002	0.00	0.01	0.000
Tote Filling		99%	4,000	17,520	0.0021	0.00099	0.00	0.018	0.0002	0.00	0.01	0.000
<b>Total</b>							<b>4.88</b>	0.05		<b>1.23</b>	0.012	

There are no emissions in AP42 for PM2.5; therefore, PM10 = PM2.5

\*According to the permittee the concrete batching emission factors represent this process, and the material consist of the similar type/size aggregates as a concrete batch plant. They are actually conservative numbers since the process is only dry at the unloading phase and is wet the remainder of the process. Since it is wet, the grain loading would not work.

**Methodology:**

Emission factors are derived from AP-42, Table 11.12-2 (concrete batch )

PTE before control (lb/hour) = Maximum throughput (tons/year) x emission factor (lbs/ton) x 1 year/8760 hours

PTE before control (tons/year) = PTE before control (lbs/hour) x 8760 hours x 1 ton/2000 lbs

PTE after control (tons/year) = PTE before control (tons/year) x (1 - control efficiency) (%)

**Appendix A: Emission Calculations**  
**Natural Gas Combustion (Less than 100 MMBtu/hr)**

Company Name: Firestone Building Products Company  
 Address: 3525 S. Arlington Avenue, Indianapolis, IN 46203  
 Registration Revision No.: 097-32754-00140  
 Reviewer: Laura Spriggs

			Criteria Pollutants					GHGs						
			PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2	N2O	CH4	GHG Mass-Based	CO2e
Emission Factor in lb/MMCF			1.9	7.6	7.6	0.6	100.0	5.5	84.0	120000	2.2	2.3		
							**see below							
Emission Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)											
Heatec Thermal Fluid Heater (EU-03)	6	51.529	0.049	0.196	0.196	0.015	2.576	0.142	2.164	3091.76	0.06	0.06	3091.88	3110.58
Inferno Therm Polyolefin HEater (EU-08)	0.8	6.871	0.007	0.026	0.026	0.002	0.344	0.019	0.289	412.24	0.01	0.01	412.25	414.74
14 Space Heaters	15.2	130.541	0.124	0.496	0.496	0.039	6.527	0.359	5.483	7832.47	0.14	0.15	7832.76	7880.14
<b>Total</b>			<b>0.18</b>	<b>0.72</b>	<b>0.72</b>	<b>0.06</b>	<b>9.45</b>	<b>0.52</b>	<b>7.94</b>	<b>11336.47</b>	<b>0.21</b>	<b>0.22</b>	<b>11336.90</b>	<b>11405.46</b>

Emission Factors are from AP-42, Tables 1.4-1 and 1.4-2.

\*PM emission factor is filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable particulate combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

N2O - 2.2 uncontrolled, 0.64 low NOx burners

			HAPs - Organics					HAPs - Metals					Total HAPs
			Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMCF			2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	1.8880
Emission Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)										
Heatec Thermal Fluid Heater (EU-03)	6	51.529	5.4E-05	3.1E-05	1.9E-03	4.6E-02	8.8E-05	1.3E-05	2.8E-05	3.6E-05	9.8E-06	5.4E-05	4.9E-02
Inferno Therm Polyolefin HEater (EU-08)	0.8	6.871	7.2E-06	4.1E-06	2.6E-04	6.2E-03	1.2E-05	1.7E-06	3.8E-06	4.8E-06	1.3E-06	7.2E-06	6.5E-03
14 Space Heaters	15.2	130.541	1.4E-04	7.8E-05	4.9E-03	1.2E-01	2.2E-04	3.3E-05	7.2E-05	9.1E-05	2.5E-05	1.4E-04	1.2E-01
<b>Total</b>			<b>2.0E-04</b>	<b>1.1E-04</b>	<b>7.1E-03</b>	<b>1.7E-01</b>	<b>3.2E-04</b>	<b>4.7E-05</b>	<b>1.0E-04</b>	<b>1.3E-04</b>	<b>3.6E-05</b>	<b>2.0E-04</b>	<b>1.8E-01</b>

Emission Factors are from AP-42, Tables 1.4-3 and 1.4-4.

The five highest organic and metal HAPs emission factors are provided above. The total HAPs is the sum of all HAPs listed in AP-42, Tables 1.4-3 and 1.4-4.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) \* 8,760 hrs/yr \* 1 MMCF/1,020 MMBtu

Potential Emission (tons/yr) = Throughput (MMCF/yr) \* Emission Factor (lb/MMCF) \* (1 ton/2,000 lb)

GHGs:

GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr)

$$CO2e = \sum_{i=1}^n GHG_i \cdot GWP_i$$

Where: CO2e = carbon dioxide equivalent (ton/yr)

GHGi = mass emission rate of each greenhouse gas (ton/yr)

GWPi = global warming potential for each greenhouse gas

n = number of greenhouse gases emitted

GWPs from 40 CFR 98, Subpart A, Table A-1: 1 for CO2, 21 for CH4, 310 for N2O

**Appendix A: Emission Calculations**  
**Liquid Storage Tanks**

Company Name: Firestone Building Products Company  
 Address: 3525 S. Arlington Avenue, Indianapolis, IN 46203  
 Registration Revision No.: 097-32754-00140  
 Reviewer: Laura Spriggs

<u>Storage Tanks Description</u>	<u>Material Stored</u>	<u>Cu. Ft.</u>	<u>Gallons Capacity</u>
Tank MB1	Asphalt	3470	25957
Tank MB2	Asphalt	3470	25957
Tank MB3	Asphalt	3470	25957
Tank 4	Polypropylene	3370	25209

Tank I.D.	Material Stored	Construction Date	Capacity (area)	Capacity (gallons)	Type of Tank (e.g. vertical fixed roof)	Working Loss VOC (lb/yr)	Breathing Loss VOC (lbs/yr)	Actual VOC Emissions from Tank 4.0.9d (lb/yr.)	Actual VOC Emissions from Tank 4.0.9d (ton/yr.)
Tank MB1	Asphalt	1990	3470 cu ft	25,957	vertical fixed roof	23.41	0	23.41	0.012
Tank MB2	Asphalt	1990	3470 cu ft	25,957	vertical fixed roof	23.41	0	23.41	0.012
Tank MB3	Asphalt	1998	3470 cu ft	25,957	vertical fixed roof	23.41	0	23.41	0.012
<b>TOTAL</b>								<b>70.23</b>	<b>0.035</b>

Methodology:

Information on the three (3) asphalt storage tanks provided by source and were from Tanks 4.0.9d on June 22, 2011.

Since there is no specific classification in Tanks 4.0.9d for asphalt storage, a conservative classification was used of Residual Oil #6

Tank 4 contains no VOCs and, therefore, has no VOC emissions, so no report was run for that tank.

VOC Emissions in pounds per year was calculated using Tanks 4.0.9d

VOC Emissions in tons per year = VOC Emissions in pounds per year divided by 2000 lbs/ton.

**Appendix A: Emission Calculations**  
**Reciprocating Internal Combustion Engines - Natural Gas**  
**4-Stroke Rich-Burn (4SRB) Engines**

Company Name: Firestone Building Products Company  
 Address: 3525 S. Arlington Avenue, Indianapolis, IN 46203  
 Registration Revision No.: 097-32754-00140  
 Reviewer: Laura Spriggs

Maximum Output Horsepower Rating (hp)	23
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	9000
Maximum Hours Operated per Year (hr/yr)	500
Potential Fuel Usage (MMBtu/yr)	104
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	0.10

**Criteria Pollutants**

	Pollutant						
	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)	0.0005	0.001	0.001	0.00003	0.11	0.002	0.19

\*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	1.44E-04
Acrolein	2.63E-03	1.36E-04
Benzene	1.58E-03	8.18E-05
1,3-Butadiene	6.63E-04	3.43E-05
Formaldehyde	2.05E-02	1.06E-03
Methanol	3.06E-03	1.58E-04
Total PAH**	1.41E-04	7.30E-06
Toluene	5.58E-04	2.89E-05
Xylene	1.95E-04	1.01E-05
<b>Total</b>		<b>1.66E-03</b>

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 Gases (GHGs)	Greenhouse Gas (GHG)		
	CO2	CH4	N2O
Emission Factor in lb/MMBtu*	110	0.23	
Emission Factor in lb/MMcf**			2.2
Potential Emission in tons/yr	5.69	0.01	0.0001
Summed Potential Emissions in tons/yr	5.70		
CO2e Total in tons/yr	5.98		

**Methodology**

\*The CO2 and CH4 emission factors are from Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-3

\*\*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 (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 SO2 = Sulfur Dioxide

NOx = Nitrous Oxides  
 VOC - Volatile Organic Compounds  
 CO = Carbon Monoxide

CO2 = Carbon Dioxide  
 CH4 = Methane  
 N2O = Nitrous Oxide  
 CO2e = CO2 equivalent emissions

**Appendix A: Emission Calculations**  
**Fugitive Dust Emissions - Paved Roads**

Company Name: Firestone Building Products Company  
Address: 3525 S. Arlington Avenue, Indianapolis, IN 46203  
Registration Revision No.: 097-32754-00140  
Reviewer: Laura Spriggs

**Paved Roads at Industrial Site**

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Shipping (Empty Truck In)	30.0	1.0	30.0	17.0	510.0	950	0.180	5.4	1970.2
Shipping (Full Truck Out)	30.0	1.0	30.0	40.0	1200.0	950	0.180	5.4	1970.2
Receiving (Full Truck In)	14.0	1.0	14.0	40.0	560.0	1900	0.360	5.0	1838.8
Receiving (Empty Truck Out)	14.0	1.0	14.0	17.0	238.0	1900	0.360	5.0	1838.8
General Deliveries	2.0	2.0	4.0	4.0	16.0	300	0.057	0.2	83.0
Light Cars and Trucks	50.0	2.0	100.0	2.0	200.0	300	0.057	5.7	2073.9
<b>Totals</b>			<b>192.0</b>		<b>2724.0</b>			<b>26.8</b>	<b>9774.8</b>

Average Vehicle Weight Per Trip = 14.2 tons/trip  
Average Miles Per Trip = 0.14 miles/trip

Unmitigated Emission Factor, Ef =  $[k * (sL)^{0.91} * (W)^{1.02}]$  (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	14.2	14.2	14.2	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m <sup>2</sup> = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext =  $E * [1 - (p/4N)]$  (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, Eext = Ef \* [1 - (p/4N)]  
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)  
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	1.301	0.260	0.0639	lb/mile
Mitigated Emission Factor, Eext =	1.190	0.238	0.0584	lb/mile
Dust Control Efficiency =	0%	0%	0%	

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Shipping (Empty Truck In)	1.28	0.26	0.06	1.17	0.23	0.06	1.17	0.23	0.06
Shipping (Full Truck Out)	1.28	0.26	0.06	1.17	0.23	0.06	1.17	0.23	0.06
Receiving (Full Truck In)	1.20	0.24	0.06	1.09	0.22	0.05	1.09	0.22	0.05
Receiving (Empty Truck Out)	1.20	0.24	0.06	1.09	0.22	0.05	1.09	0.22	0.05
General Deliveries	0.05	0.01	0.00	0.05	0.01	0.00	0.05	0.01	0.00
Light Cars and Trucks	1.35	0.27	0.07	1.23	0.25	0.06	1.23	0.25	0.06
<b>Totals</b>	<b>6.36</b>	<b>1.27</b>	<b>0.31</b>	<b>5.81</b>	<b>1.16</b>	<b>0.29</b>	<b>5.81</b>	<b>1.16</b>	<b>0.29</b>

**Methodology**

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]  
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Unmitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)  
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Mitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)  
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] \* [1 - Dust Control Efficiency]

**Abbreviations**

PM = Particulate Matter  
PM10 = Particulate Matter (<10 um)  
PM2.5 = Particle Matter (<2.5 um)  
PTE = Potential to Emit



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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100 North Senate Avenue  
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Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

## SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Lance Black  
Firestone Building Products Company  
3525 South Arlington Avenue  
Indianapolis, IN 46203

DATE: April 5, 2013

FROM: Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

SUBJECT: Final Decision  
Registration Revision  
097-32754-00140

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Jeff Alford, Plant Manager  
Tanya Schnelzer  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07

# Mail Code 61-53

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Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	

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2		Jeff Alford Plant Mgr Firestone Building Products Company 3525 S Arlington Ave Indianapolis IN 46203 (RO CAATS)										
3		Marion County Health Department 3838 N, Rural St Indianapolis IN 46205-2930 (Health Department)										
4		Indianapolis City Council and Mayors Office 200 East Washington Street, Room E Indianapolis IN 46204 (Local Official)										
5		Marion County Commissioners 200 E. Washington St. City County Bldg., Suite 801 Indianapolis IN 46204 (Local Official)										
6		Matt Mosier Office of Sustainability 1200 S Madison Ave #200 Indianapolis IN 46225 (Local Official)										
7		Tanya Schnelzer Firestone Building Products Company 250 West 96th Street Indianapolis IN 46260 (Source – addl contact)										
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