

Indiana Department of Environmental Management

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Michael R. Pence

Carol S. Comer

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding the Renewal of a Part 70 Operating Permit

for Mulzer Crushed Stone, Inc. (Cape Sandy Facility) in Crawford County

Part 70 Operating Permit Renewal No.: T025-36919-00002

The Indiana Department of Environmental Management (IDEM) has received an application from Mulzer Crushed Stone, Inc. (Cape Sandy Facility), located at 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137, for a renewal of its Part 70 Operating Permit issued on December 9, 2011. If approved by IDEM's Office of Air Quality (OAQ), this proposed renewal would allow Mulzer Crushed Stone, Inc. (Cape Sandy Facility) to continue to operate its existing source.

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

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

Breedon Memorial Library 529 West Old State Road 62 Leavenworth, IN 47137

and

IDEM Southeast Regional Office 820 West Sweet Street Brownstown, IN 47220-9557

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

How can you participate in this process?

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

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



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

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number T025-36919-00002 in all correspondence.

Comments should be sent to:

Monica Dick IDEM, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251 (800) 451-6027, ask for extension 4-1243 Or dial directly: (317) 234-1243

Fax: (317) 232-6749 attn: Monica Dick

E-mail: mdick@idem.IN.gov

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

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

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

If you have any questions, please contact Mulzer Crushed Stone, Inc. (Cape Sandy Facility) of my staff at the above address.

Josiah K. Balogun, Section Chief

Permits Branch Office of Air Quality



Indiana Department of Environmental Management

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Michael R. Pence



Carol S. Comer Commissioner

New Source Construction and Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

Mulzer Crushed Stone, Inc. (Cape Sandy Facility) 19925 S. Alton Fredonia Road Leavenworth. Indiana 47137

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions

Operation Permit No.: T025-36919-00002			
Issued by:	Issuance Date:		
Josiah K. Balogun, Section Chief	Expiration Date:		
Permits Branch	·		
Office of Air Quality			



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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary limestone crushing and processing source.

Source Address: 19925 S. Alton Fredonia Road, Leavenworth, Indiana

47137

General Source Phone Number: 812-547-1400

SIC Code: 1422 (Crushed and Broken Limestone)

County Location: Crawford

Source Location Status: Attainment for all criteria pollutants
Source Status: Part 70 Operating Permit Program

Minor Source, under PSD

Minor Source, Section 112 of the Clean Air Act

Not 1 of 28 Source Categories

A.2 Source Definition [326 IAC 2-7-1(22)]

This source consists of five (5) plants all located at 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137:

- (a) Stationary Plant 1;
- (b) Stationary Plant 1A;
- (c) Stationary Plant 2;
- (d) Stationary Eleven's Plant; and
- (e) Stationary Sand Plant.

These five (5) plants are located on one or more contiguous properties, have the same two digit SIC code and are still under common ownership; therefore, they are considered one (1) major source, as defined by 326 IAC 2-7-1(22). This conclusion was initially determined under Part 70 Operating Permit Renewal T025-29526-00002 on December 9, 2011.

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

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

- Stationary Plant 1 Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Stationary Plant 1 are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983. Fugitive emissions are controlled by wet suppression.
 - (a) Four (4) limestone crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1986, capacity: 1,200 tons of limestone per hour;

- One (1) secondary crusher, installed in 1986, capacity: 750 tons of limestone per hour;
- One (1) tertiary crusher, installed in 1962 (replaced with identical equipment in 1987), capacity: 250 tons of limestone per hour.
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to tertiary crusher.
- (4) One (1) tertiary crusher, installed in 1987, capacity: 250 tons of limestone per hour; and

[Under 40 CFR 60, Subpart OOO these crushers are considered an affected facility]

- (b) Twenty five (25) conveyors identified as follows:
 - (1) Three (3) conveyors, installed in 1986, capacity: 1,500 tons of limestone per hour, each;
 - (2) Twenty two (22) conveyors, installed in 1986, capacity: 1,000 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (c) Nine (9) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1986 (replaced in 2015), capacity: 1,200 tons of limestone per hour;
 - One (1) secondary screen, installed in 1988, capacity: 1,250 tons of limestone per hour;
 - (3) Six (6) tertiary screens, installed in 1986, capacity: 820 tons of limestone per hour, each; and
 - (4) One (1) final screen, installed in 1986, capacity: 770 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO these screens are considered an affected facility]

- (d) Four (4) feeders as follows:
 - (1) One (1) feeder, installed in October of 1987, with an operating capacity of 1000 tons per hour;
 - One (1) feeder, installed in February of 2011, with an operating capacity of 200 tons per hour;
 - One (1) feeder, installed in October of 1987, with an operating capacity of 400 tons per hour; and
 - One (1) feeder, installed in October of 1987, with an operating capacity of 400 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

Permit Reviewer: Monica Dick

- (e) One (1) rock wash operation, identified as Wash Loadout Plant, consisting of dewatering screws, each installed in 1988 unless otherwise identified, as follows:
 - (1) One (1) multideck screen (3 decks), each deck with an operating capacity of 1250 tons per hour.

[Under 40 CFR 60, Subpart OOO this screen is considered an affected facility]

- (2) Five (5) conveyors, as follows:
 - (A) Four (4) conveyors, each with a capacity of 1250 ton per hour; and
 - (B) One (1) conveyor, (moved to the Wash Loadout Plant from Plant 1A) installed in 1992, with a capacity of 500 ton per hour.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

(3) One (1) feeder, with a capacity of 1200 tons per hour.

[Under 40 CFR 60, Subpart OOO this feeder is considered an affected facility]

(f) One (1) truck loading and unloading operation, installed in 1988, capacity: 1,200 tons of limestone per hour, including one (1) bin installed in 1996, capacity: 150 tons of limestone.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

- Stationary Plant 1A Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Stationary Plant 1A are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983, except for the primary crusher. Fugitive emissions are controlled by wet suppression.
 - (g) Three (3) crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1962 (replaced in 2002) capacity: 800 tons of limestone per hour;
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to primary crusher.
 - One (1) secondary crusher, installed in 1966 (replaced in 1992), capacity: 500 tons of limestone per hour;
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to secondary crusher.
 - One (1) tertiary crusher, installed in 1992, capacity: 400 tons of limestone per hour;

[Under 40 CFR 60, Subpart OOO these crushers are considered an affected facility]

- (h) Three (3) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1992, capacity: 800 tons of limestone per hour;

(2) Two (2) final screens, installed in 1992, capacity: 500 tons of limestone per hour total:

[Under 40 CFR 60, Subpart OOO these screens are considered an affected facility]

- (i) Seventeen (17) conveyors identified as follows:
 - (1) Five (5) conveyors, capacity: 1,000 tons of limestone per hour, each;
 - (2) Five (5) conveyors, capacity: 800 tons of limestone per hour, each;
 - (3) Six (6) conveyors, capacity: 500 tons of limestone per hour, each;

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (j) Three (3) feeders as follows:
 - (1) One (1) feeder, installed in July of 2011, with an operating capacity of 700 tons per hour;
 - (2) One (1) feeder, installed in October of 1992, with an operating capacity of 750 tons per hour;
 - One (1) feeder, installed in October of 1992, with an operating capacity of 400 tons per hour;

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

(k) One (1) truck loading and unloading operation, installed in 1992, including two (2) bin loading operations, installed 1996, capacity: 1,200 tons of limestone per hour;

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

Stationary Plant 2 - Fugitive emissions are controlled by wet suppression.

- (I) Five (5) crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1980, replaced with identical equipment in 1994, capacity: 1,200 tons of limestone per hour;
 - (2) One (1) secondary crusher, installed in 1980, capacity: 900 tons of limestone per hour:
 - (3) One (1) tertiary crusher, installed in 1980, capacity: 750 tons of limestone per hour:
 - (4) Two (2) quaternary crushers, installed in 1980 (replaced with identical equipment in 1987), capacity: 370 tons of limestone per hour, each;
- (m) Seventeen (17) conveyors identified as follows:
 - (1) Three (3) conveyors, installed in 1980, capacity: 1,500 tons of limestone per hour, each;
 - (2) Six (6) conveyors, installed in 1980, capacity: 1,200 tons of limestone per hour;

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- (3) Eight (8) conveyors, installed in 1980, capacity: 1,000 tons of limestone per hour, each:
- (n) Eight (8) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1980, capacity: 1,050 tons of limestone per hour:
 - One (1) secondary screen, installed in 1980, capacity: 1,150 tons of limestone per hour;
 - One (1) tertiary screen, installed in 1980, capacity: 1,245 tons of limestone per hour;
 - (4) Five (5) quaternary screens, installed in 1980, capacity: 1,195 tons of limestone per hour, each;
- (o) Four (4) feeders as follows:
 - (1) One (1) feeder, installed in February of 1988, with an operating capacity of 1200 tons per hour;
 - One (1) feeder, installed in October of 1987, with an operating capacity of 150 tons per hour;
 - One (1) feeder, installed in April of 2011, with an operating capacity of 500 tons per hour;
 - One (1) feeder, installed in April of 2011, with an operating capacity of 500 tons per hour;
- (p) Two (2) truck loading operations, installed in 1980, capacity: 1,200 tons of limestone per hour, each;
- Eleven's Plant Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Eleven's Plant are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983. Fugitive emissions are controlled by wet suppression.
 - (q) One (1) secondary crusher, installed in 1998, capacity: 390 tons of limestone per hour;

[Under 40 CFR 60, Subpart OOO this crusher is considered an affected facility]

(r) One (1) screen, installed in 1998, capacity: 390 tons of limestone per hour;

[Under 40 CFR 60, Subpart OOO this screen is considered an affected facility]

- (s) Fourteen (14) conveyors identified as follows:
 - (1) Three (3) stackers, installed in 1998, capacity: 300 tons of limestone per hour each;
 - (2) Four (4) conveyors, installed in 1998, capacity: 390 tons of limestone per hour, each;

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Leavenworth, Indiana Permit Reviewer: Monica Dick

(3) Seven (7) conveyors, installed in 1998, capacity: 300 tons of limestone per hour, each; and

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (t) Two (2) feeders as follows:
 - (1) One (1) feeder, installed in June of 1998, with an operating capacity of 390 tons per hour;
 - One (1) feeder, installed in June of 1998, with an operating capacity of 390 tons per hour;

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

(u) One (1) feed hopper, one (1) feed belt and one (1) surge bin installed in 1998, with a combined loading and unloading capacity of 390 tons per hour.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

Sand Plant -

- (v) One (1) wet lime aggregate sand classifying plant, known as Sand Plant (SP), and storage pile created in 1993, with a capacity of 300 tons of limestone per hour, consisting of the following units [326 IAC 2-2]:
 - (1) Two (2) feeders, installed in 1992, with an operating capacity of 150 tons per hour each:
 - (2) One (1) screen, installed in 1992, with an operating capacity of 300 tons per hour; and
 - (3) Five (5) conveyors, installed in 1992, with an operating capacity of 300 tons per hour each.

Combustion Units

(w) One (1) diesel-fired 475 HP Plant 2 generator, manufactured in 2007, company number MY-0109.

[Under 40 CFR 63, Subpart ZZZZ (4Z) and 40 CFR, Subpart IIII (4I) this engine is considered an affected facility]

- (x) Three (3) diesel generators identified as follows:
 - (1) One (1) intermittent electric generator, identified as Eleven's Plant Generator, AG-1402, constructed in 1998, a catalytic convertor was added in 2015, with a capacity of 1400 HP.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

Underground Fan emergency engine, company number AG-0902, capacity of 1089 HP, manufactured in 1995 and start-up in 2001 at Cape Sandy.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

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(3) Non-emergency Back-up Generator, company number AG-0901, capacity of 676 HP, manufactured in 1995 and start-up in 2001 at Cape Sandy.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

(y) Paved and unpaved roads.

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

This stationary source also includes the following insignificant activities:

- (a) Three (3) breakers, with a capacity of 600 ton per hour, used prior to the crushers to occasionally size or un-jam limestone for crushing.
- (b) Six (6) comfort heaters consisting of the following:
 - (1) Three (3) LP-fired heaters with a maximum heat input rate of 0.14 MMBtu/hr, constructed in 2009:
 - (2) One (1) diesel heater with a maximum heat input rate of 0.35 MMBtu/hr, constructed in 1994;
 - (3) One (1) diesel heater with a maximum heat input rate of 0.35 MMBtu/hr, constructed in 2012; and
 - (4) One (1) diesel and waste oil heater with a maximum heat input rate of 0.35 MMBtu/hr, constructed in 2008.
- (c) Eight (8) welding units that are equipped to perform flame cutting as follows:
 - (1) A maximum consumption of 5 pounds per hour of electrodes; and
 - (2) A maximum capacity of cutting a metal thickness of two (2) inches at a maximum rate of twelve (12) inches per minute.
- (d) Three (3) fifteen (15) gallon parts washer, each with a maximum usage of less than 15 lbs of VOC per day.
- (e) A petroleum fuel, other than gasoline, dispensing operation with a maximum capacity of dispensing less than or equal to 230,000 gallons per month, including ten (10) storage vessels having a storage capacity of less than or equal to 10,500 gallons and one (1) storage vessel having a storage capacity of 15,000 gallons:
- (f) The following VOC and HAP storage containers: vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids;
- (g) Equipment used exclusively for the following: packaging lubricants and greases.
- (h) Three (3) portable mobile generators used for pumping water consisting of the following:
 - (1) One (1) 80 HP generator [Non Road Engines]; and
 - (2) Two (1) 35.1 HP generators, identified as MG-1034 and MG-0134 [Non Road Engines].

[The three (3) portable mobile generator engines are nonroad engines, as defined in 40 CFR 1068.30].

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A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 Applicability).

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SECTION B

GENERAL CONDITIONS

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

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

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

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

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

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

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

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

- (a) This permit, T025-36919-00002, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.5 Term of Conditions [326 IAC 2-1.1-9.5]

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

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

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B.6 Enforceability [326 IAC 2-7-7][IC 13-17-12]

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

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

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

B.8 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

B.9 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

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

B.10 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:
 - (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]

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

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

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

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

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

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

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

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

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

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

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.13 Emergency Provisions [326 IAC 2-7-16]

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,

Compliance and Enforcement Branch), or

Telephone Number: 317-233-0178 (ask for Office of Air Quality,

Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Southeast Regional Office phone: (812) 358-2027; fax: (812) 358-2058.

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

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

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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B.14 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

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

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
 - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T025-36919-00002 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.16 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

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

B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.18 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source,

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except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.19 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

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

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]
- B.20 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]
 - (a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

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

B.21 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.
 - Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).
- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
 - (1) A brief description of the change within the source;



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- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

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

- (c) Emission Trades [326 IAC 2-7-20(c)]

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

 The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.22 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.23 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

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

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B.24 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

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

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

B.25 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

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

B.26 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

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

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SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the attached plan as in Attachment D. The provisions of 326 IAC 6-5 are not federally enforceable.

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

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



- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

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

- (e) Procedures for Asbestos Emission Control
 The Permittee shall comply with the applicable emission control procedures in 326 IAC
 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are
 applicable for any removal or disturbance of RACM greater than three (3) linear feet on
 pipes or three (3) square feet on any other facility components or a total of at least 0.75
 cubic feet on all facility components.
- (f) Demolition and Renovation
 The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) Indiana Licensed Asbestos Inspector The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

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

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

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

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

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

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

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

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

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

C.14 Response to Excursions or Exceedances [326 IAC 2-7-5][326 IAC 2-7-6]

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

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

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- (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.
- C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]
 - (a) When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
 - (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
 - (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

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

Pursuant to 326 IAC 2-6-3(b)(3), starting in 2006 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

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

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:
 - (AA) All calibration and maintenance records.
 - (BB) All original strip chart recordings for continuous monitoring instrumentation.
 - (CC) Copies of all reports required by the Part 70 permit.

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

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

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

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

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B -Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:

Indiana Department of Environmental Management



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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Stationary Plant 1 - Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Stationary Plant 1 are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983. Fugitive emissions are controlled by wet suppression.

- (a) Four (4) limestone crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1986, capacity: 1,200 tons of limestone per hour;
 - One (1) secondary crusher, installed in 1986, capacity: 750 tons of limestone per hour;
 - One (1) tertiary crusher, installed in 1962 (replaced with identical equipment in 1987), capacity: 250 tons of limestone per hour.
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to tertiary crusher.
 - (4) One (1) tertiary crusher, installed in 1987, capacity: 250 tons of limestone per hour; and

[Under 40 CFR 60, Subpart OOO these crushers are considered an affected facility]

- (b) Twenty five (25) conveyors identified as follows:
 - (1) Three (3) conveyors, installed in 1986, capacity: 1,500 tons of limestone per hour, each;
 - (2) Twenty two (22) conveyors, installed in 1986, capacity: 1,000 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (c) Nine (9) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1986 (replaced in 2015), capacity: 1,200 tons of limestone per hour;
 - (2) One (1) secondary screen, installed in 1988, capacity: 1,250 tons of limestone per hour:
 - (3) Six (6) tertiary screens, installed in 1986, capacity: 820 tons of limestone per hour, each; and
 - (4) One (1) final screen, installed in 1986, capacity: 770 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO these screens are considered an affected facility]

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- (d) Four (4) feeders as follows:
 - (1) One (1) feeder, installed in October of 1987, with an operating capacity of 1000 tons per hour;
 - One (1) feeder, installed in February of 2011, with an operating capacity of 200 tons per hour;
 - One (1) feeder, installed in October of 1987, with an operating capacity of 400 tons per hour; and
 - (4) One (1) feeder, installed in October of 1987, with an operating capacity of 400 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

- (e) One (1) rock wash operation, identified as Wash Loadout Plant, consisting of dewatering screws, each installed in 1988 unless otherwise identified, as follows:
 - (1) One (1) multideck screen (3 decks), each deck with an operating capacity of 1250 tons per hour.

[Under 40 CFR 60, Subpart OOO this screen is considered an affected facility]

- (2) Five (5) conveyors, as follows:
 - (A) Four (4) conveyors, each with a capacity of 1250 ton per hour; and
 - (B) One (1) conveyor (moved to the Wash Loadout Plant from Plant 1A) installed in 1992, with a capacity of 500 ton per hour.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

(3) One (1) feeder, with a capacity of 1200 tons per hour.

[Under 40 CFR 60, Subpart OOO this feeder is considered an affected facility]

(f) One (1) truck loading and unloading operation, installed in 1988, capacity: 1,200 tons of limestone per hour, including one (1) bin installed in 1996, capacity: 150 tons of limestone.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

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

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

D.1.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2(e), the manufacturing processes listed in the table below shall be limited by the following:

emission units	process weight rate of each emission unit (ton/hr)	emission limit for each emission unit (lb/hr)	
	Plant 1		
crusher	1,200	79.97	
each crusher	250	60.96	
each conveyor	1,500	82.95	
each conveyor	1,000	77.59	
each screen	1,200	79.97	
each screen	1,250	80.51	
each screen	820	75.05	
each screen	770	74.26	
each feeder	1,000	77.59	
each feeder	200	58.51	
each feeder	400	66.31	
Plant 1 Wash Loadout Plant			
Multideck screen (3 decks)	each deck 1,250	each deck 80.51	
each conveyor	1,250	80.51	
conveyor	500	68.96	

These limits are determined by the following equations:

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

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

(b) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emissions may exceed the emission limits shown paragraph (a), provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

D.1.2 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable, the nonfugitive particulate emissions from Stationary Plant 1 shall comply with the followings:

- (a) The source-wide crushed stone throughput shall not exceed 8,000,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The moisture content of the limestone processed shall not be less than 0.55%.
- (c) The nonfugitive particulate emissions from Stationary Plant 1 shall be limited to the following pound per ton rates:

Emission Units	PM Emissions (lb/ton)	PM ₁₀ / PM _{2.5} Emissions (lb/ton)
Each primary Crusher	0.0002	0.0002
Each secondary Crusher	0.0002	0.0002
Each Tertiary Crusher	0.0012	0.00054
Each Quaternary / Final Crusher	0.003	0.0012



Each primary Screen	0.0022	0.00074
Each secondary Screen	0.0022	0.00074
Each Tertiary Screen	0.0036	0.0022
Each Quaternary / Final Screen	0.0036	0.0022
Each conveyor transfer point	0.00014	0.000046
Feeders	0.003	0.0011

Compliance with these limits, combined with the potential to emit PM, PM10, and PM2.5 in Conditions D.2.2, D.3.2, D.4.2 and D.5.2 and emissions from all other emission units at this source, shall limit the source-wide total potential to emit of nonfugitive PM, PM10, and PM2.5 to less than two-hudred fifty (250) tons per twelve year and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to the source.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

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

D.1.4 Particulate Control

In order to ensure compliance with Condition D.1.2, the Permittee shall apply an initial application of water or a mixture of water and wetting agent to control the PM, PM10, and PM2.5 emissions from the feeders, crushers, screens, and the conveyors at Stationary Plant 1. The suppressant shall be applied in a manner and at a frequency sufficient to ensure compliance with Condition D.1.2. If weather conditions preclude the use of wet suppression, the Permittee shall perform a moisture content analysis on the nonmetallic mineral material to ensure it has a moisture content of at least 0.55 percent of the process stream by weight or greater. The Permittee shall submit to IDEM, OAQ the method for moisture content analysis for approval.

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

D.1.5 Visible Emissions Notations

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



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

D.1.6 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.2(b), the Permittee shall maintain records as needed of the chemical analysis of the nonmetallic mineral material.
- (b) To document the compliance status with Condition D.1.2(c), the Permittee shall maintain monthly records of the source-wide crushed stone throughput.
- (c) To document the compliance status with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the crushers, conveyors, screens, feeders, and wash loadout plant (screens and conveyors) emissions. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).
- (d) Section C General Record Keeping Requirements, contains the Permittee's obligations with regard to the records required by this condition.

D.1.7 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.2(c) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (35).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Stationary Plant 1A - Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Stationary Plant 1A are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983, except for the primary crusher. Fugitive emissions are controlled by wet suppression.

- (g) Three (3) crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1962 (replaced in 2002) capacity: 800 tons of limestone per hour.
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to primary crusher.
 - One (1) secondary crusher, installed in 1966 (replaced with equipment in 1992), capacity: 500 tons of limestone per hour.
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to secondary crusher.
 - (3) One (1) tertiary crusher, installed in 1992, capacity: 400 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO these crushers are considered an affected facility]

- (h) Three (3) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1992, capacity: 800 tons of limestone per hour.
 - (2) Two (2) final screens, installed in 1992, capacity: 500 tons of limestone per hour total.

[Under 40 CFR 60, Subpart OOO these screens are considered an affected facility]

- (i) Seventeen (17) conveyors identified as follows:
 - (1) Five (5) conveyors, installed in 1992, capacity: 1,000 tons of limestone per hour, each;
 - (2) Five (5) conveyors, installed in 1992, capacity: 800 tons of limestone per hour, each; and
 - (3) Six (6) conveyors, installed in 1992, capacity: 500 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

(j) Three (3) feeders as follows:



(1)	one (1) feeder, installed in July of 2011, with an operating capacity of 700 tons
	per hour;

- (2) one (1) feeder, installed in October of 1992, with an operating capacity of 750 tons per hour; each
- one (1) feeder, installed in October of 1992, with an operating capacity of 400 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

(k) One (1) truck loading and unloading operation, installed in 1992, including two (2) bin loading operations, installed 1996, capacity: 1,200 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

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

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

D.2.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3-2(e), the manufacturing processes listed in the table below shall be limited by the following:

emission units process weight rate of each emission unit (ton/hr)		emission limit for each emission unit (lb/hr)
	Plant 1A	
crusher	800	74.74
crusher	400	66.31
screen	800	74.74
each screen	250	60.96
each conveyor	1,000	77.59
each conveyor	800	74.74
each conveyor	500	68.96
feeder	700	73.06
feeder	750	73.93
feeder	400	66.31

These limits are determined by the following equations:

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

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

(b) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emissions may exceed the emission limits shown paragraph (a), provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

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D.2.2 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable, the nonfugitive particulate emissions from Stationary Plant 1A shall comply with the following:

- (a) The source-wide crushed stone throughput shall not exceed 8,000,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The moisture content of the limestone processed shall not be less than 0.55%.
- (c) The nonfugitive particulate emissions from Stationary Plant 1A shall be limited to the following pound per ton rates:

Emission Units	PM Emissions	PM ₁₀ / PM _{2.5} Emissions
Emission onits	(lb/ton)	(lb/ton)
Each primary Crusher	0.0002	0.0002
Each secondary Crusher	0.0002	0.0002
Each Tertiary Crusher	0.0012	0.00054
Each Quaternary / Final Crusher	0.003	0.0012
Each primary Screen	0.0022	0.00074
Each secondary Screen	0.0022	0.00074
Each Tertiary Screen	0.0036	0.0022
Each Quaternary / Final Screen	0.0036	0.0022
Each conveyor transfer point	0.00014	0.000046
Feeders	0.003	0.0011

Compliance with these limits, combined with the potential to emit PM, PM10, and PM2.5 in Conditions D.1.2, D.3.2, D.4.2 and D.5.2 and emissions from all other emission units at this source, shall limit the source-wide total potential to emit of nonfugitive PM, PM10, and PM2.5 to less than two-hudred fifty (250) tons per twelve year and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to the source.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

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

D.2.4 Particulate Control

In order to ensure compliance with Condition D.2.2, the Permittee shall apply an initial application of water or a mixture of water and wetting agent to control the PM, PM10, and PM2.5 emissions from the feeders, crushers, screens, and the conveyors at Stationary Plant 1A. The suppressant shall be applied in a manner and at a frequency sufficient to ensure compliance with Condition D.2.2. If weather conditions preclude the use of wet suppression, the Permittee shall perform moisture content analysis on the nonmetallic mineral material to ensure it has a moisture content of at least 0.55 percent of the process stream by weight or greater. The Permittee shall submit to IDEM, OAQ the method for moisture content analysis for approval.

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

D.2.5 Visible Emissions Notations

(a) Visible emission notations of the crushers, screens, and conveyors, and feeders emissions shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

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

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

D.2.6 Record Keeping Requirements

- (a) To document the compliance status with Condition D.2.2(b), the Permittee shall maintain records as needed of the chemical analysis of the nonmetallic mineral material.
- (b) To document the compliance status with Condition D.2.2(c), the Permittee shall maintain monthly records of the source-wide crushed stone throughput.
- (c) To document the compliance status with Condition D.2.5, the Permittee shall maintain records of daily visible emission notations of the crushers, screens, conveyors, and feeders emissions. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).
- (d) Section C General Record Keeping Requirements, contains the Permittee's obligations with regard to the records required by this condition.

D.2.7 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.2.2(c) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (35).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Permit Reviewer: Monica Dick

Stationary Plant 2 - Fugitive emissions are controlled by wet suppression.

- (I) Five (5) crushers identified as follows:
 - One (1) primary crusher, installed in 1980, replaced with identical equipment in 1994, capacity: 1,200 tons of limestone per hour;
 - One (1) secondary crusher, installed in 1980, capacity: 900 tons of limestone per hour;
 - (3) One (1) tertiary crusher, installed in 1980, capacity: 750 tons of limestone per hour; and
 - (4) Two (2) quaternary crushers, installed in 1980 (replaced with identical equipment in 1987), capacity: 370 tons of limestone per hour, each.
- (m) Seventeen (17) conveyors identified as follows:
 - (1) Three (3) conveyors, installed in 1980, capacity: 1,500 tons of limestone per hour, each;
 - (2) Six (6) conveyors, installed in 1980, capacity: 1,200 tons of limestone per hour; and
 - (3) Eight (8) conveyors, installed in 1980, capacity: 1,000 tons of limestone per hour, each.
- (n) Eight (8) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1980, capacity: 1,050 tons of limestone per hour;
 - One (1) secondary screen, installed in 1980, capacity: 1,150 tons of limestone per hour;
 - (3) One (1) tertiary screen, installed in 1980, capacity: 1,245 tons of limestone per hour; and
 - (4) Five (5) quaternary screens, installed in 1980, capacity: 1,195 tons of limestone per hour, each.
- (o) Four (4) feeders as follows:
 - (1) One (1) feeder, installed in February of 1988, with an operating capacity of 1200 tons per hour;
 - One (1) feeder, installed in October of 1987, with an operating capacity of 150 tons per hour;
 - (3) One (1) feeder, installed in April of 2011, with an operating capacity of 500

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tons per hour; and

- (4) One (1) feeder, installed in April of 2011, with an operating capacity of 500 tons per hour.
- (p) Two (2) truck loading operations, installed in 1980, capacity: 1,200 tons of limestone per hour, each.

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

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

D.3.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3-2(e), the manufacturing processes listed in the table below shall be limited by the following:

emission units	process weight rate of each emission unit (ton/hr)	emission limit for each emission unit (lb/hr)
	Plant 2	
crusher	1,200	79.97
crusher	900	76.23
crusher	750	73.93
each crusher	370	65.41
each conveyor	1,500	82.95
each conveyor	1,200	79.97
each conveyor	1,000	77.59
each screen	1,050	78.22
screen	1,245	80.46
each screen	1,195	79.91
feeder	1,200	79.97
each feeder	500	68.96

These limits are determined by the following equations:

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

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

(b) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emissions may exceed the emission limits shown paragraph (a), provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

D.3.2 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable, the nonfugitive particulate emissions from Stationary Plant 2 shall comply with the following:

(a) The source-wide crushed stone throughput shall not exceed 8,000,000 tons per twelve



(12) consecutive month period with compliance determined at the end of each month.

- (b) The moisture content of the limestone processed shall not be less than 0.55%.
- (c) The nonfugitive particulate emissions from Stationary Plant 2 shall be limited to the following pound per ton rates:

Emission Units	PM Emissions	PM ₁₀ / PM _{2.5} Emissions
Lillission offits	(lb/ton)	(lb/ton)
Each primary Crusher	0.0002	0.0002
Each secondary Crusher	0.0002	0.0002
Each Tertiary Crusher	0.0012	0.00054
Each Quaternary / Final Crusher	0.003	0.0012
Each primary Screen	0.0022	0.00074
Each secondary Screen	0.0022	0.00074
Each Tertiary Screen	0.0036	0.0022
Each Quaternary / Final Screen	0.0036	0.0022
Each conveyor transfer point	0.00014	0.000046
Feeders	0.003	0.0011

Compliance with these limits, combined with the potential to emit PM, PM10, and PM2.5 in Conditions D.1.2, D.2.2, D.4.2 and D.5.2 and emissions from all other emission units at this source, shall limit the source-wide total potential to emit of nonfugitive PM, PM10, and PM2.5 to less than two-hudred fifty (250) tons per twelve year and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to the source.

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

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

D.3.4 Particulate Control

In order to ensure compliance with Condition D.3.2, the Permittee shall apply an initial application of water or a mixture of water and wetting agent to control the PM, PM10, and PM2.5 emissions from the feeders, crushers, screens, and the conveyors at Stationary Plant 2. The suppressant shall be applied in a manner and at a frequency sufficient to ensure compliance with Condition D.3.2. If weather conditions preclude the use of wet suppression, the Permittee shall perform moisture content analysis on the nonmetallic mineral material to ensure it has a moisture content of at least 0.55 percent of the process stream by weight or greater. The Permittee shall submit to IDEM, OAQ the method for moisture content analysis for approval.

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

D.3.5 Visible Emissions Notations

- (a) Visible emission notations of the crushers, conveyors, screens, and feeders shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part

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of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.3.6 Record Keeping Requirements

- (a) To document the compliance status with Condition D.3.2(b), the Permittee shall maintain records as needed of the chemical analysis of the nonmetallic mineral material.
- (b) To document the compliance status with Condition D.3.2(c), the Permittee shall maintain monthly records of the source-wide crushed stone throughput.
- (c) To document the compliance status with Condition D.3.5, the Permittee shall maintain records of visible emission notations of crushers, conveyors, screens, and feeders emissions. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).
- (d) Section C General Record Keeping Requirements, contains the Permittee's obligations with regard to the records required by this condition.

D.3.7 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.3.2(c) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (35).

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Eleven's Plant - Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Eleven's Plant are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983. Fugitive emissions are controlled by wet suppression.

(q) One (1) secondary crusher, installed in 1998, capacity: 390 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO this crusher is considered an affected facility]

(r) One (1) screen, installed in 1998, capacity: 390 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO this screen is considered an affected facility]

- (s) Fourteen (14) conveyors identified as follows:
 - (1) Three (3) stackers, installed in 1998, capacity: 300 tons of limestone per hour each;
 - (2) Four (4) conveyors, installed in 1998, capacity: 390 tons of limestone per hour, each; and
 - (3) Seven (7) conveyors, installed in 1998, capacity: 300 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (t) Two (2) feeders as follows:
 - (1) One (1) feeder, installed in June of 1998, with an operating capacity of 390 tons per hour; and
 - One (1) feeder, installed in June of 1998, with an operating capacity of 390 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

(u) One (1) feed hopper, one (1) feed belt and one (1) surge bin installed in 1998, with a combined loading and unloading capacity of 390 tons per hour.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

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

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



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D.4.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3-2(e), the manufacturing processes listed in the table below shall be limited by the following:

emission units process weight rate of each emission unit (ton/hr)		emission limit for each emission unit (lb/hr)	
Eleven's Plant			
screen	66.02		
each conveyor 300		63.00	
each feeder	390	66.02	

These limits are determined by the following equations:

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

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

(b) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emissions may exceed the emission limits shown paragraph (a), provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

D.4.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable, the nonfugitive particulate emissions from Eleven's Plant shall comply with the following:

- (a) The source-wide crushed stone throughput shall not exceed 8,000,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The moisture content of the limestone processed shall not be less than 0.55%.
- (c) The nonfugitive particulate emissions from Eleven's Plant shall be limited to the following pound per ton rates:

Emission Units	PM Emissions	PM ₁₀ / PM _{2.5} Emissions
Emission onits	(lb/ton)	(lb/ton)
Each primary Crusher	0.0002	0.0002
Each secondary Crusher	0.0002	0.0002
Each Tertiary Crusher	0.0012	0.00054
Each Quaternary / Final Crusher	0.003	0.0012
Each primary Screen	0.0022	0.00074
Each secondary Screen	0.0022	0.00074
Each Tertiary Screen	0.0036	0.0022
Each Quaternary / Final Screen	0.0036	0.0022
Each conveyor transfer point	0.00014	0.000046
Feeders	0.003	0.0011

Compliance with these limits, combined with the potential to emit PM, PM10, and PM2.5 in Conditions D.1.2, D.2.2, D.3.2, and D.5.2 and emissions from all other emission units at this source, shall limit the source-wide total potential to emit of nonfugitive PM, PM10, and PM2.5 to less than two-hudred fifty (250) tons per twelve year and shall render the requirements of 326 IAC

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2-2 (Prevention of Significant Deterioration (PSD)) not applicable to the source.

D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

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

D.4.4 Particulate Control

In order to ensure compliance with Condition D.4.2, the Permittee shall apply an initial application of water or a mixture of water and wetting agent to control the PM, PM10, and PM2.5 emissions from the feeders, crushers, screens, and the conveyors at Eleven's Plant. The suppressant shall be applied in a manner and at a frequency sufficient to ensure compliance with Condition D.4.2. If weather conditions preclude the use of wet suppression, the Permittee shall moisture content analysis on the nonmetallic mineral material to ensure it has a moisture content of at least 0.55 percent of the process stream by weight or greater. The Permittee shall submit to IDEM, OAQ the method for moisture content analysis for approval.

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

D.4.5 Visible Emissions Notations

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

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

D.4.6 Record Keeping Requirements

- (a) To document the compliance status with Condition D.4.2(b), the Permittee shall maintain records as needed of the chemical analysis of the nonmetallic mineral material.
- (b) To document the compliance status with Condition D.4.2(c), the Permittee shall maintain monthly records of the source-wide crushed stone throughput.
- (c) To document the compliance status with Condition D.4.5, the Permittee shall maintain records of visible emission notations screen, conveyors, and feeders emissions. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate

Mulzer Crushed Stone, Inc. (Cape Sandy Facility) Leavenworth, Indiana

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that day).

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

D.4.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.2(c) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (35).

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Permit Reviewer: Monica Dick

Sand Plant -

- (v) One (1) wet lime aggregate sand classifying plant, known as Sand Plant (SP), and storage pile created in 1993, with a capacity of 300 tons of limestone per hour, consisting of the following units [326 IAC 2-2]:
 - (1) Two (2) feeders, installed in 1992, with an operating capacity of 150 tons per hour each:
 - (2) One (1) screen, installed in 1992, with an operating capacity of 300 tons per hour; and
 - (3) Five (5) conveyors, installed in 1992, with an operating capacity of 300 tons per hour each.

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

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

D.5.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3]

(a) Pursuant to 326 IAC 6-3-2(e), the manufacturing processes listed in the table below shall be limited by the following:

emission units process weight rate of each emission unit (ton/hr)		emission limit for each emission unit (lb/hr)
Sand Plant		
screen 300		63.00
each conveyor	300	63.00

These limits are determined by the following equations:

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

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

(b) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emissions may exceed the emission limits shown paragraph (a), provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

D.5.2 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable, the nonfugitive particulate emissions from Sand Plant shall comply with the following:

(a) The source-wide crushed stone throughput shall not exceed 8,000,000 tons per twelve



- (12) consecutive month period with compliance determined at the end of each month.
- (b) The moisture content of the limestone processed shall not be less than 0.55%.
- (c) The nonfugitive particulate emissions from Sand Plant shall be limited to the following pound per ton rates:

Emission Units	PM Emissions	PM ₁₀ / PM _{2.5} Emissions
Emission onits	(lb/ton)	(lb/ton)
Each primary Crusher	0.0002	0.0002
Each secondary Crusher	0.0002	0.0002
Each Tertiary Crusher	0.0012	0.00054
Each Quaternary / Final Crusher	0.003	0.0012
Each primary Screen	0.0022	0.00074
Each secondary Screen	0.0022	0.00074
Each Tertiary Screen	0.0036	0.0022
Each Quaternary / Final Screen	0.0036	0.0022
Each conveyor transfer point	0.00014	0.00046
Feeders	0.003	0.0011

Compliance with these limits, combined with the potential to emit PM, PM10, and PM2.5 in Conditions D.1.2, D.2.2, D.3.2, and D.4.2 and emissions from all other emission units at this source, shall limit the source-wide total potential to emit of nonfugitive PM, PM10, and PM2.5 to less than two-hudred fifty (250) tons per twelve year and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to the source.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

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

D.5.4 Particulate Control

In order to ensure compliance with Condition D.5.2, the Permittee shall apply an initial application of water or a mixture of water and wetting agent to control the PM, PM10, and PM2.5 emissions from the feeders, crushers, screens, and the conveyors at Sand Plant. The suppressant shall be applied in a manner and at a frequency sufficient to ensure compliance with Condition D.5.2. If weather conditions preclude the use of wet suppression, the Permittee shall perform moisture content analysis on the nonmetallic mineral material to ensure it has a moisture content of at least 0.55 percent of the process stream by weight or greater. The Permittee shall submit to IDEM, OAQ the method for moisture content analysis for approval.

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

D.5.5 Visible Emissions Notations

- (a) Visible emission notations of the screen and conveyors shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part

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of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take a reasonable response. Section C Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.5.6 Record Keeping Requirements

- (a) To document the compliance status with Condition D.5.2(b), the Permittee shall maintain records as needed of the chemical analysis of the nonmetallic mineral material.
- (b) To document the compliance status with Condition D.5.2(c), the Permittee shall maintain monthly records of the source-wide crushed stone throughput.
- (c) To document the compliance status with Condition D.5.5, the Permittee shall maintain records of daily visible emission notations screen and conveyors emissions. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (i.e. the process did not operate that day).
- (d) Section C General Record Keeping Requirements, contains the Permittee's obligations with regard to the records required by this condition.

D.5.7 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.5.2(c) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (35).

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Combustion Units

(w) One (1) diesel-fired 475 HP Plant 2 generator, manufactured in 2007, company number MY-0109.

[Under 40 CFR 63, Subpart ZZZZ (4Z) and 40 CFR, Subpart IIII (4I) this engine is considered an affected facility]

- (x) Three (3) diesel generators identified as follows:
 - (1) One (1) intermittent electric generator, identified as Eleven's Plant Generator, AG-1402, constructed in 1998, a catalytic convertor was added in 2015, with a capacity of 1400 HP.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

(2) Underground Fan emergency engine, company number AG-0902, capacity of 1089 HP, manufactured in 1995 and start-up in 2001 at Cape Sandy.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

(3) Non-emergency Back-up Generator, company number AG-0901, capacity of 676 HP, manufactured in 1995 and start-up in 2001 at Cape Sandy.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

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

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

D.6.1 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable, the source shall comply with the following:

- (a) The diesel generators identified as Plant 2 Generator, company number MY-0109; Nonemergency Back-up Generator, company number AG-0901; and Eleven's Plant Generator, AG-1402; shall be limited to 7,400 hours of operation each per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) NOx emissions from the Plant 2 Generator, company number MY-0109, shall not exceed three hundredths (0.03) lb/hp-hr NOx.
- (c) NOx emissions from the Eleven's Plant Generator, AG-1402 and the Non-emergency Back-up Generator, company number AG-0901, shall each not exceed two hundredths (0.02) lb/hp-hr NOx.

Compliance with these limits, combined with the potential to emit NOx from all other emission units at this source, shall limit the source-wide total potential to emit of NOx to less than two-hudred fifty (250) tons per twelve year and shall render the requirements of 326 IAC 2-2



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(Prevention of Significant Deterioration (PSD)) not applicable to the source.

D.6.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

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

D.6.3 Record Keeping Requirements

- (a) To document the compliance status with Condition D.6.1(a), the Permittee shall maintain monthly records of the hours of operation for the diesel generators identified as Plant 2 Generator, company number ZVHH0109; Underground Fan, company number AG-0902, and Eleven's Plant Generator, AG-1402;.
- (b) Section C General Record Keeping Requirements, contains the Permittee's obligations with regard to the records required by this condition.

D.6.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.6.1(a) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (35).

SECTION E.1 NSPS

Emissions Unit Description:

Permit Reviewer: Monica Dick

Stationary Plant 1 - Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Stationary Plant 1 are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983. Fugitive emissions are controlled by wet suppression.

- (a) Four (4) limestone crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1986, capacity: 1,200 tons of limestone per hour;
 - One (1) secondary crusher, installed in 1986, capacity: 750 tons of limestone per hour;
 - One (1) tertiary crusher, installed in 1962 (replaced with identical equipment in 1987), capacity: 250 tons of limestone per hour.
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to tertiary crusher.
 - (4) One (1) tertiary crusher, installed in 1987, capacity: 250 tons of limestone per hour; and

[Under 40 CFR 60, Subpart OOO these crushers are considered an affected facility]

- (b) Twenty five (25) conveyors identified as follows:
 - (1) Three (3) conveyors, installed in 1986, capacity: 1,500 tons of limestone per hour, each;
 - (2) Twenty two (22) conveyors, installed in 1986, capacity: 1,000 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (c) Nine (9) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1986 (replaced in 2015), capacity: 1,200 tons of limestone per hour;
 - One (1) secondary screen, installed in 1988, capacity: 1,250 tons of limestone per hour;
 - (3) Six (6) tertiary screens, installed in 1986, capacity: 820 tons of limestone per hour, each; and
 - (4) One (1) final screen, installed in 1986, capacity: 770 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO these screens are considered an affected facility]

(d) Four (4) feeders as follows:



- (1) One (1) feeder, installed in October of 1987, with an operating capacity of 1000 tons per hour;
- One (1) feeder, installed in February of 2011, with an operating capacity of 200 tons per hour;
- One (1) feeder, installed in October of 1987, with an operating capacity of 400 tons per hour; and
- (4) One (1) feeder, installed in October of 1987, with an operating capacity of 400 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

- (e) One (1) rock wash operation, identified as Wash Loadout Plant, consisting of dewatering screws, each installed in 1988 unless otherwise identified, as follows:
 - (1) One (1) multideck screen (3 decks), each deck with an operating capacity of 1250 tons per hour.

[Under 40 CFR 60, Subpart OOO this screen is considered an affected facility]

- (2) Five (5) conveyors, as follows:
 - (A) Four (4) conveyors, each with a capacity of 1250 ton per hour; and
 - (B) One (1) conveyor, (moved to the Wash Loadout Plant from Plant 1A) installed in 1992, with a capacity of 500 ton per hour.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

(3) One (1) feeder, with a capacity of 1200 tons per hour.

[Under 40 CFR 60, Subpart OOO this feeder is considered an affected facility]

(f) One (1) truck loading and unloading operation, installed in 1988, capacity: 1,200 tons of limestone per hour, including one (1) bin installed in 1996, capacity: 150 tons of limestone.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

- Stationary Plant 1A Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Stationary Plant 1A are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983, except for the primary crusher. Fugitive emissions are controlled by wet suppression.
 - (g) Three (3) crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1962 (replaced in 2002) capacity: 800 tons of limestone per hour.

The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to primary crusher.

Leavenworth, Indiana Permit Reviewer: Monica Dick

- One (1) secondary crusher, installed in 1966 (replaced in 1992), capacity: 500 tons of limestone per hour.
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to secondary crusher.
- (3) One (1) tertiary crusher, installed in 1992, capacity: 400 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO these crushers are considered an affected facility]

- (h) Three (3) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1992, capacity: 800 tons of limestone per hour.
 - (2) Two (2) final screens, installed in 1992, capacity: 500 tons of limestone per hour total.

[Under 40 CFR 60, Subpart OOO these screens are considered an affected facility]

- (i) Seventeen (17) conveyors identified as follows:
 - (1) Five (5) conveyors, installed in 1992, capacity: 1,000 tons of limestone per hour, each;
 - (2) Five (5) conveyors, installed in 1992, capacity: 800 tons of limestone per hour, each; and
 - (3) Six (6) conveyors, installed in 1992, capacity: 500 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (j) Three (3) feeders as follows:
 - One (1) feeder, installed in July of 2011, with an operating capacity of 700 tons per hour;
 - (2) One (1) feeder, installed in October of 1992, with an operating capacity of 750 tons per hour; each
 - One (1) feeder, installed in October of 1992, with an operating capacity of 400 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

(k) One (1) truck loading and unloading operation, installed in 1992, including two (2) bin loading operations, installed 1996, capacity: 1,200 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

Eleven's Plant - Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Eleven's Plant are considered existing affected facilities that operate at a crushed stone plant

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with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983. Fugitive emissions are controlled by wet suppression.

(q) One (1) secondary crusher, installed in 1998, capacity: 390 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO this crusher is considered an affected facility]

(r) One (1) screen, installed in 1998, capacity: 390 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO this screen is considered an affected facility]

- (s) Fourteen (14) conveyors identified as follows:
 - (1) Three (3) stackers, installed in 1998, capacity: 300 tons of limestone per hour each;
 - (2) Four (4) conveyors, installed in 1998, capacity: 390 tons of limestone per hour, each; and
 - (3) Seven (7) conveyors, installed in 1998, capacity: 300 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (t) Two (2) feeders as follows:
 - (1) One (1) feeder, installed in June of 1998, with an operating capacity of 390 tons per hour; and
 - (2) One (1) feeder, installed in June of 1998, with an operating capacity of 390 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

(u) One (1) feed hopper, one (1) feed belt and one (1) surge bin installed in 1998, with a combined loading and unloading capacity of 390 tons per hour.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

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

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

- E.1.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1][40 CFR Part 60, Subpart A]
 - (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 60, Subpart OOO.
 - (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

E.1.2 Standards of Performance for Nonmetallic Mineral Processing Plants NSPS [326 IAC 12] [40 CFR Part 60, Subpart OOO]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart OOO (included as Attachment A to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:

- (1) 40 CFR 60.670
- (2) 40 CFR 60.671
- (3) 40 CFR 60.672(b),(d)
- (4) 40 CFR 60.673
- (5) 40 CFR 60.675(a),(c)(1)&(3), (e)(1)&(2)
- (6) 40 CFR 60.676 (a),(f),(g),(h),(i)(1),(j),(k)
- (7) Table 1
- (8) Table 3

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SECTION E.2 NESHAP

Emissions Unit Description:

Combustion Units

Permit Reviewer: Monica Dick

(w) One (1) diesel-fired 475 HP Plant 2 generator, manufactured in 2007, company number MY-0109.

[Under 40 CFR 63, Subpart ZZZZ (4Z) and 40 CFR, Subpart IIII (4I) this engine is considered an affected facility]

- (x) Three (3) diesel generators identified as follows:
 - (1) One (1) intermittent electric generator, identified as Eleven's Plant Generator, AG-1402, constructed in 1998, a catalytic convertor was added in 2015, with a capacity of 1400 HP.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

(2) Underground Fan emergency engine, company number AG-0902, capacity of 1089 HP, manufactured in 1995 and start-up in 2001 at Cape Sandy.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

(3) Non-emergency Back-up Generator, company number AG-0901, capacity of 676 HP, manufactured in 1995 and start-up in 2001 at Cape Sandy.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

- E.2.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]
 - (a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ.
 - (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

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E.2.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ][326 IAC 20-82]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 20-82, for the emission unit(s) listed above:

Eleven's Plant Generator engine, Underground Fan engine, and Emergency Back-up Generator engine

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(a)(1)(iii)
- (4) 40 CFR 63.6595(a)(6),(c)
- (5) 40 CFR 63.6603(a)
- (6) 40 CFR 63.6604
- (7) 40 CFR 63.6605
- (8) 40 CFR 63.6612
- (9) 40 CFR 63.6615
- (10) 40 CFR 63.6620
- (11) 40 CFR 63.6625
- (12) 40 CFR 63.6630
- (13) 40 CFR 63.6635
- (14) 40 CFR 63.6640(a),(b)
- (15) 40 CFR 63.6645
- (16) 40 CFR 63.6650
- (17) 40 CFR 63.6655
- (18) 40 CFR 63.6660
- (19) 40 CFR 63.6665
- (20) 40 CFR 63.6670
- (21) 40 CFR 63.6675
- (22) Tables 1-8 (applicable portions)

475 HP Plant 2 Generator

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(a)(2)(iii) and (c)(1)
- (4) 40 CFR 63.6595(a)(6)
- (5) 40 CFR 63.6665
- (6) 40 CFR 63.6670
- (7) 40 CFR 63.6675

SECTION E.3 NSPS

Emissions Unit Description:

Combustion Units

(w) One (1) diesel-fired 475 HP Plant 2 generator, manufactured in 2007, company number MY-0109.

[Under 40 CFR 63, Subpart ZZZZ (4Z) and 40 CFR, Subpart IIII (4I) this engine is considered an affected facility]

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

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

- E.3.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]
 - (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A General Provisions, which are incorporated by reference as 326 IAC 12-1, for the emission units listed above, except as otherwise specified in 40 CFR Part 60, Subpart IIII (4I).
 - (b) Pursuant to 40 CFR 60.4, the Permittee shall submit all required notifications and reports to:

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

E.3.2 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines NSPS [326 IAC 12] [40 CFR Part 60, Subpart IIII]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart IIII (41) (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above:

- (1) 40 CFR 60.4200
- (2) 40 CFR 60.4204(b)
- (3) 40 CFR 60.4201(a)
- (4) 40 CFR 60.4206
- (5) 40 CFR 60.4207
- (6) 40 CFR 60.4208
- (7) 40 CFR 60.4209
- (8) 40 CFR 60.4211(a), (c), (g)
- (9) 40 CFR 60.4218
- (10) 40 CFR 60.4219
- (11) Table 8

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE AND ENFORCEMENT BRANCH PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Source Address: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Part 70 Permit No.: T025-36919-00002

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.
Please check what document is being certified:
□ Annual Compliance Certification Letter
□ Test Result (specify)
□ Report (specify)
□ Notification (specify)
□ Affidavit (specify)
□ Other (specify)
I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003

MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251 Phone: (317) 233-0178 Fax: (317) 233-6865

PART 70 OPERATING PERMIT EMERGENCY OCCURRENCE REPORT

Source Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Source Address: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Part 70 Permit No.: T025-36919-00002

This form consists of 2 pages

Page 1 of 2

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

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

Describe the cause of the Emergency:

- The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

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Permit Reviewer: Monica Dick

If any of the following are not applicable, mark N/A Page 2 of 2 Date/Time Emergency started: Date/Time Emergency was corrected: Was the facility being properly operated at the time of the emergency? Ν Type of Pollutants Emitted: TSP, PM-10, SO₂, VOC, NO_X, CO, Pb, other: Estimated amount of pollutant(s) emitted during emergency: Describe the steps taken to mitigate the problem: Describe the corrective actions/response steps taken: Describe the measures taken to minimize emissions: If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value: Form Completed by: Title / Position: Date:

Phone:

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

Part 70 Quarterly Report

Mulzer Crushed Stone, Inc. (Cape Sandy Facility) 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137 T025-36919-00002 Entire Source (Plants 1, 1A, 2 Eleven's, and Sand) - Nonfugitive Emission Units (Feeding, Crushing, Screening and Conveying Operations) Crushed stone throughput 8,000,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month. RTER: YEAR:		
Column 1	Column 2	Column 1 + Column 2
This Month	Previous 11 Months	12 Month Total
eviation/s occurred in the eviation has been repor	is quarter. ted on:	
	19925 S. Alton Fred T025-36919-00002 Entire Source (Plant (Feeding, Crushing, Crushed stone throus, 000,000 tons per t determined at the error (Feeding). This Month (Feeding) of deviation occurred in the eviation has been reportant to the country of the country	19925 S. Alton Fredonia Road, Leavenworth, India T025-36919-00002 Entire Source (Plants 1, 1A, 2 Eleven's, and Sand) (Feeding, Crushing, Screening and Conveying Ope Crushed stone throughput 8,000,000 tons per twelve (12) consecutive month determined at the end of each month. RTER: YEAR: Column 1 Column 2 This Month Previous 11 Months or deviation occurred in this quarter. eviation/s occurred in this quarter. eviation has been reported on: Initted by:

Date:

Phone:

Leavenworth, Indiana Permit Reviewer: Monica Dick



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

Part 70 Quarterly Report

Source Name: Source Address: Part 70 Permit No.: Facilities: Parameter: Limit:	Mulzer Crushed Stone, Inc. (Cape Sandy Facility) 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137 T025-36919-00002 Plant 2 Generator, company number MY-0109; Non-emergency Back-up Generator, company number AG-0901; and Diesel generators identified as Eleven's Plant Generator, AG-1402 Hours of Operation 7,400 hours of operation each per twelve (12) consecutive month period with compliance determined at the end of each month.			
QOA				
	Column 1	Column 2	Column 1 + Column 2	
Month	This Month	Previous 11 Months	12 Month Total	
□ De	o deviation occurred in the eviation/s occurred in the eviation has been repor	is quarter.		
Title / Signa	/ Position:ature:			

Source Name:

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

Mulzer Crushed Stone. Inc. (Cape Sandy Facility)

Source Address: Part 70 Permit No.:	19925 S. Alton Fredonia F T025-36919-00002	Roàd, Leavenworth, Indiana 47137		
Mo	nths: to	Year:		
		Page 1 of 2		
Section B -Emergence General Reporting. A the probable cause of required to be reported shall be reported accorded in this re	cy Provisions satisfies the ready any deviation from the requi- of the deviation, and the res- ed pursuant to an applicable cording to the schedule state port. Additional pages may	n a calendar year. Proper notice submittal under eporting requirements of paragraph (a) of Section C-rements of this permit, the date(s) of each deviation, ponse steps taken must be reported. A deviation e requirement that exists independent of the permit, ed in the applicable requirement and does not need to be attached if necessary. If no deviations occurred, occurred this reporting period".		
☐ NO DEVIATIONS	OCCURRED THIS REPOR	TING PERIOD.		
☐ THE FOLLOWING	DEVIATIONS OCCURRE	D THIS REPORTING PERIOD		
Permit Requirement (specify permit condition #)				
Date of Deviation:		Duration of Deviation:		
Number of Deviatio	ns:			
Probable Cause of Deviation:				
Response Steps Taken:				
Permit Requiremen	t (specify permit condition #	£)		
Date of Deviation:		Duration of Deviation:		
Number of Deviations:				
Probable Cause of	Deviation:			
Response Steps Ta	ken:			

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Permit Requirement (specify permit condition #)				
Date of Deviation:	Duration of Deviation:			
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				
Permit Requirement (specify permit condition #)				
Date of Deviation:	Duration of Deviation:			
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				
Permit Requirement (specify permit condition #)				
Date of Deviation:	Duration of Deviation:			
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				
Form Completed by:				
Title / Position:				
Date:				
Phone:				

Attachment A

Part 70 Operating Permit No: 025-36919-00002

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

Source: 74 FR 19309, Apr. 28, 2009, unless otherwise noted.

§ 60.670 Applicability and designation of affected facility.

- (a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.
- (2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; plants without crushers or grinding mills above ground; and wet material processing operations (as defined in § 60.671).
- (b) An affected facility that is subject to the provisions of subparts F or I of this part or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.
- (c) Facilities at the following plants are not subject to the provisions of this subpart:
- (1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in § 60.671, of 23 megagrams per hour (25 tons per hour) or less;
- (2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in § 60.671, of 136 megagrams per hour (150 tons per hour) or less; and
- (3) Common clay plants and pumice plants with capacities, as defined in § 60.671, of 9 megagrams per hour (10 tons per hour) or less.
- (d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in § 60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of §§ 60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.
- (2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in § 60.676(a).
- (3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§ 60.672, 60.674 and 60.675.

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- (e) An affected facility under paragraph (a) of this section that commences construction, modification, or reconstruction after August 31, 1983, is subject to the requirements of this part.
- (f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more affected facilities to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crush or *Crushing* means to reduce the size of nonmetallic mineral material by means of physical impaction of the crusher or grinding mill upon the material.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: Jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in § 60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: Hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

40 CFR 60, Subpart OOO Attachment A

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Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(1) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.
(2) Sand and Gravel.
(3) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.
(4) Rock Salt.
(5) Gypsum (natural or synthetic).
(6) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.
(7) Pumice.
(8) Gilsonite.
(9) Talc and Pyrophyllite.
(10) Boron, including Borax, Kernite, and Colemanite.
(11) Barite.
(12) Fluorospar.
(13) Feldspar.
(14) Diatomite.
(15) Perlite.
(16) Vermiculite.
(17) Mica.
(18) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.
Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in § 60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

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Saturated material means, for purposes of this subpart, mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be "saturated" for purposes of this definition.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens). Grizzly feeders associated with truck dumping and static (non-moving) grizzlies used anywhere in the nonmetallic mineral processing plant are not considered to be screening operations.

Seasonal shut down means shut down of an affected facility for a period of at least 45 consecutive days due to weather or seasonal market conditions.

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) of nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: Trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet material processing operation(s) means any of the following:

- (1) Wet screening operations (as defined in this section) and subsequent screening operations, bucket elevators and belt conveyors in the production line that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line; or
- (2) Screening operations, bucket elevators and belt conveyors in the production line downstream of wet mining operations (as defined in this section) that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

§ 60.672 Standard for particulate matter (PM).

(a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart 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 as required under § 60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

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(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart 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 as required under § 60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

(c) [Reserved]

- (d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.
- (e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:
- (1) Fugitive emissions from the building openings (except for vents as defined in § 60.671) must not exceed 7 percent opacity; and
- (2) Vents (as defined in § 60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.
- (f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

§ 60.673 Reconstruction.

- (a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under § 60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.
- (b) Under § 60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

- (a) The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:
- (1) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±250 pascals ±1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.
- (2) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.
- (b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under § 60.676(b).

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- (1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section:
- (i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and § 60.676(b), and
- (ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under § 60.11 of this part and § 60.675 of this subpart.
- (2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under § 60.676(b) must specify the control mechanism being used instead of the water sprays.
- (c) Except as specified in paragraph (d) or (e) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, Appendix A-7). The Method 22 (40 CFR part 60, Appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under § 60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to § 60.675(b) simultaneously with a Method 22 (40 CFR part 60, Appendix A-7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.
- (d) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions may use a bag leak detection system. The owner or operator must install, operate, and maintain the bag leak detection system according to paragraphs (d)(1) through (3) of this section.
- (1) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(1)(i) through (viii) of this section.
- (i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.
- (ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g. , using a strip chart recorder or a data logger).
- (iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (d)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.
- (iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.
- (v) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.

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- (vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (d)(2) of this section.
- (vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.
- (viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
- (2) The owner or operator of the affected facility must develop and submit to the Administrator or delegated authority for approval of a site-specific monitoring plan for each bag leak detection system. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (d)(2)(i) through (vi) of this section.
- (i) Installation of the bag leak detection system;
- (ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established:
- (iii) Operation of the bag leak detection system, including quality assurance procedures;
- (iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;
- (v) How the bag leak detection system output will be recorded and stored; and
- (vi) Corrective action procedures as specified in paragraph (d)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.
- (3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (d)(2)(vi) of this section, the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:
- (i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
- (ii) Sealing off defective bags or filter media;
- (iii) Replacing defective bags or filter media or otherwise repairing the control device;
- (iv) Sealing off a defective fabric filter compartment;
- (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
- (vi) Shutting down the process producing the PM emissions.
- (e) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) may follow the continuous compliance requirements in row 1 items (i) through (iii) of Table 6 to Subpart AAAAA of 40 CFR part 63.

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§ 60.675 Test methods and procedures.

- (a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendices A-1 through A-7 of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.
- (b) The owner or operator shall determine compliance with the PM standards in § 60.672(a) as follows:
- (1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of Appendix A-3 of this part or Method 17 of Appendix A-6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR part 60, Appendix A-3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.
- (2) Method 9 of Appendix A-4 of this part and the procedures in § 60.11 shall be used to determine opacity.
- (c)(1) In determining compliance with the particulate matter standards in § 60.672(b) or § 60.672(e)(1), the owner or operator shall use Method 9 of Appendix A-4 of this part and the procedures in § 60.11, with the following additions:
- (i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
- (ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of this part, Section 2.1) must be followed.
- (iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
- (2)(i) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under § 60.672(f) of this subpart, using Method 9 (40 CFR part 60, Appendix A-4), the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations shall be 1 hour (ten 6-minute averages).
- (ii) The duration of the Method 9 (40 CFR part 60, Appendix A-4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.
- (3) When determining compliance with the fugitive emissions standard for any affected facility described under § 60.672(b) or § 60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.
- (d) To demonstrate compliance with the fugitive emission limits for buildings specified in § 60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of this section. Performance tests must be conducted while all affected facilities inside the building are operating.
- (1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and § 60.11.
- (2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 CFR part 60, Appendix A-7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with

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the opacity limit in § 60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and § 60.11 to show compliance with the opacity limit in § 60.672(e)(1).

- (e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
- (1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:
- (i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
- (ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.
- (2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:
- (i) No more than three emission points may be read concurrently.
- (ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
- (iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.
- (3) Method 5I of Appendix A-3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 5I (40 CFR part 60, Appendix A-3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.
- (4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of Appendix A-1 of this part [i.e., velocity head <1.3 mm H_2 O (0.05 in. H_2 O)] and referred to in EPA Method 5 of Appendix A-3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (e.g., from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

$$v_e = \frac{Q_f}{A}$$
 (Eq. 1)

Where:

V_e = average building vent velocity (feet per minute);

Q_f = average fan flow rate (cubic feet per minute); and

A_e = area of building vent and measurement location (square feet).

(f) To comply with § 60.676(d), the owner or operator shall record the measurements as required in § 60.676(c) using the monitoring devices in § 60.674 (a)(1) and (2) during each particulate matter run and shall determine the averages.

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- (g) For performance tests involving only Method 9 (40 CFR part 60 Appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in § 60.7(a)(6) and 60.8(d) to a 7-day advance notification.
- (h) [Reserved]
- (i) If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in § 60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

§ 60.676 Reporting and recordkeeping.

- (a) Each owner or operator seeking to comply with § 60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.
- (1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:
- (i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and
- (ii) The rated capacity in tons per hour of the replacement equipment.
- (2) For a screening operation:
- (i) The total surface area of the top screen of the existing screening operation being replaced and
- (ii) The total surface area of the top screen of the replacement screening operation.
- (3) For a conveyor belt:
- (i) The width of the existing belt being replaced and
- (ii) The width of the replacement conveyor belt.
- (4) For a storage bin:
- (i) The rated capacity in megagrams or tons of the existing storage bin being replaced and
- (ii) The rated capacity in megagrams or tons of replacement storage bins.
- (b)(1) Owners or operators of affected facilities (as defined in §§ 60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under § 60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.
- (2) For each bag leak detection system installed and operated according to § 60.674(d), the owner or operator must keep the records specified in paragraphs (b)(2)(i) through (iii) of this section.
- (i) Records of the bag leak detection system output;
- (ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

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- (iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.
- (3) The owner or operator of each affected facility demonstrating compliance according to § 60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) must maintain records of visible emissions observations required by § 63.7132(a)(3) and (b) of 40 CFR part 63, subpart AAAAA.
- (c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.
- (d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test.
- (e) The reports required under paragraph (d) of this section shall be postmarked within 30 days following end of the second and fourth calendar quarters.
- (f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in § 60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with § 60.672(b), (e) and (f).
- (g) The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in § 60.672(b) and the emission test requirements of § 60.11.
- (h) The subpart A requirement under § 60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under this subpart.
- (i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.
- (1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.
- (2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.
- (j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.
- (k) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to § 60.4(b).

Table 1 to Subpart OOO of Part 60—Exceptions to Applicability of Subpart A to Subpart OOO

Subpart A reference	Applies to subpart OOO	Explanation
60.4, Address	Yes	Except in § 60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§ 60.676(k)).
60.7, Notification and recordkeeping	Yes	Except in (a)(1) notification of the date construction or reconstruction commenced (§ 60.676(h)).
		Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§ 60.675(g)).
60.8, Performance tests	Yes	Except in (d) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§ 60.675(g)).
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§ 60.675(c)), Method 9 (40 CFR part 60, Appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions.
60.18, General control device	No	Flares will not be used to comply with the emission limits.

Table 2 to Subpart OOO of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§ 60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	0.05 g/dscm (0.022 gr/dscf) ^a	7 percent for dry control devices ^b	An initial performance test according to § 60.8 of this part and § 60.675 of this subpart; and Monitoring of wet scrubber parameters according to § 60.674(a) and § 60.676(c), (d), and (e).
Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf) ^a	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to § 60.8 of this part and § 60.675 of this subpart; and Monitoring of wet scrubber parameters according to § 60.674(a) and § 60.676(c), (d), and (e); and
			Monitoring of baghouses according to § 60.674(c), (d), or (e) and § 60.676(b).

^a Exceptions to the PM limit apply for individual enclosed storage bins and other equipment. See § 60.672(d) through (f).

^b The stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits

For * * *	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§ 60.670 and 60.671) * * *	The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§ 60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	10 percent opacity	15 percent opacity	An initial performance test according to § 60.11 of this part and § 60.675 of this subpart.
Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	12 percent opacity	An initial performance test according to § 60.11 of this part and § 60.675 of this subpart; and Periodic inspections of water sprays according to § 60.674(b) and § 60.676(b); and
			A repeat performance test according to § 60.11 of this part and § 60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in § 60.674(b) and § 60.676(b) are exempt from this 5-year repeat testing requirement.

Attachment B

Part 70 Operating Permit No: 025-36919-00002

[Downloaded from the eCFR on July 23, 2014]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

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

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

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

What This Subpart Covers

§63.6580 What is the purpose of subpart ZZZZ?

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

[73 FR 3603, Jan. 18, 2008]

§63.6585 Am I subject to this subpart?

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

- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.
- (c) An area source of HAP emissions is a source that is not a major source.
- (d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.
- (e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

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- (f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in 63.6675, which includes operating according to the provisions specified in 63.6640(f).
- (1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).
- (2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).
- (3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).
- [69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

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

This subpart applies to each affected source.

- (a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
- (1) Existing stationary RICE.
- (i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.
- (ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.
- (2) New stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.
- (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (3) Reconstructed stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

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- (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 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;

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- (4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.
- [69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

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

- (a) Affected sources. (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.
- (2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.
- (3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
- (5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
- (7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (b) Area sources that become major sources. If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

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- (1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.
- (2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.
- (c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

Emission and Operating Limitations

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

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

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

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

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

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

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

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

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

[78 FR 6701, Jan. 30, 2013]

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

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

- (a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.
- (b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.
- (1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).
- (2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.
- (i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.
- (ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.
- (iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.
- (c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:
- (1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement.
- (2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.
- (3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

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- (4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
- (d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.
- (e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.
- (f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

§63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

- (a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.
- (b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.
- (c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

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(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.

[78 FR 6702, Jan. 30, 2013]

General Compliance Requirements

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

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

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

Testing and Initial Compliance Requirements

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

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

- (a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).
- (b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).
- (c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).
- (d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.
- (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
- (2) The test must not be older than 2 years.

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- (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.

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

- (a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.
- (b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.
- (1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.
- (2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.
- (3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.
- (4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.
- (c) [Reserved]
- (d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour, unless otherwise specified in this subpart.
- (e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

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

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

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

R = percent reduction of CO, THC, or formaldehyde emissions.

- (2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.
- (i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_O = \frac{0.209 \ F_d}{F_C}$$
 (Eq. 2)

Where:

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

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

 F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu).

 F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu)

(ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent O₂, as follows:

$$X_{CO2} = \frac{5.9}{F_O}$$
 (Eq. 3)

Where:

 $X_{CO2} = CO_2$ correction factor, percent.

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

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O2 using CO2 as follows:

$$C_{adj} = C_d \frac{X_{CO2}}{\$CO_2} (Eq.4)$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O₂.

 C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

 $X_{CO2} = CO_2$ correction factor, percent.

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

- (f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.
- (g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.
- (1) Identification of the specific parameters you propose to use as operating limitations;
- (2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
- (3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

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- (4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
- (5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
- (h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.
- (1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (e.g., operator adjustment, automatic controller adjustment, etc.) or unintentionally (e.g., wear and tear, error, etc.) on a routine basis or over time;
- (2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
- (3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
- (4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
- (5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
- (6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
- (7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.
- (i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010; 78 FR 6702, Jan. 30, 2013]

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

- (a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O_2 or CO_2 according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.
- (1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.
- (2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR

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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 CO₂ 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.

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- (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.

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

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013]

§63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

- (a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.
- (b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.
- (c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.
- (d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.
- (e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:
- (1) The compliance demonstration must consist of at least three test runs.

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- (2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
- (3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.
- (4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.
- (5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.
- (6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

Continuous Compliance Requirements

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

- (a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.
- (b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

§63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

- (a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.
- (b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.
- (c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

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- (1) The compliance demonstration must consist of at least one test run.
- (2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
- (3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.
- (4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.
- (5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.
- (6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.
- (7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.
- (d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).
- (e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.
- (f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
- (1) There is no time limit on the use of emergency stationary RICE in emergency situations.

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- (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

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engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6704, Jan. 30, 2013]

Notifications, Reports, and Records

§63.6645 What notifications must I submit and when?

- (a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;
- (1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.
- (2) An existing stationary RICE located at an area source of HAP emissions.
- (3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
- (4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.
- (5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.
- (b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.
- (c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- (d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.
- (e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- (f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).
- (g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).
- (h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

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- (1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.
- (2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).
- (i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013]

§63.6650 What reports must I submit and when?

- (a) You must submit each report in Table 7 of this subpart that applies to you.
- (b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
- (1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.
- (2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.
- (3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- (4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
- (5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
- (6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.
- (7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.
- (8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

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- (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.

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- (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).

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- (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).
- (vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- (viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.
- (ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.
- (2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- (3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §63.13.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013]

§63.6655 What records must I keep?

- (a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (b)(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.

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- (d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
- (e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
- (1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.
- (2) An existing stationary emergency RICE.
- (3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
- (f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.
- (1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.
- (2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30, 2013]

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

- (a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).
- (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

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

Other Requirements and Information

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

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

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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(I)(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).

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

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

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

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

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

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

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

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO₂.

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).

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(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 CO₂.

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;

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- (3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and
- (4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

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

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

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X , CO, and volatile organic compounds (VOC) into CO_2 , nitrogen, and water.

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

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

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

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

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

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

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

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C₃H₈.

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Remote stationary RICE means stationary RICE meeting any of the following criteria:

- (1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.
- (2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.
- (i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.
- (ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.
- (iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.
- (3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

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

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

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

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

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

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

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

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

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

Subpart means 40 CFR part 63, subpart ZZZZ.

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

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

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011; 78 FR 6706, Jan. 30, 2013]

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

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

For each	You must meet the following emission limitation, except during periods of startup	During periods of startup you must
1. 4SRB stationary RICE	June 15, 2004, you may reduce formaldehyde	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ¹
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂	

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

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

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

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

For each	You must meet the following operating limitation, except during periods of startup
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ and using NSCR;	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.1
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ and not using NSCR.	

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

[78 FR 6706, Jan. 30, 2013]

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

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

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

For each	You must meet the following emission limitation, except during periods of startup	During periods of startup you must
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O ₂	

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

[75 FR 9680, Mar. 3, 2010]

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

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

For each	You must meet the following operating limitation, except during periods of startup
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst.	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.1
2. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and
	b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and	Comply with any operating limitations approved by the Administrator.
New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and	

For each	You must meet the following operating limitation, except during periods of startup
existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	

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

[78 FR 6707, Jan. 30, 2013]

Table 2c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions

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

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

For each	You must meet the following requirement, except during periods of startup	During periods of startup you must
4. Non-Emergency, non-black start Cl stationary RICE 300 <hp≤500< td=""><td>a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O₂; or b. Reduce CO emissions by 70 percent or more.</td><td></td></hp≤500<>	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O ₂ ; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O ₂ ; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE. ¹	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ² b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; ² b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. ³	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; ² b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary. ³	

For each	You must meet the following requirement, except during periods of startup	During periods of startup you must
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O ₂ .	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O ₂ .	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O ₂ .	
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O ₂ .	

¹If 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.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]

²Sources 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.

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

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

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

For each	You must meet the following requirement, except during periods of startup	During periods of startup you must
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; 1 b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
2. Non-Emergency, non-black start CI stationary RICE 300 <hp≤500< td=""><td>a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O₂; or</td><td></td></hp≤500<>	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O ₂ ; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE. ²	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	

For each	You must meet the following requirement, except during periods of startup	During periods of startup you must
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year. ²	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; ¹	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; ¹	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first; ¹	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each	You must meet the following requirement, except during periods of startup	During periods of startup you must
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	
10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; ¹	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first; ¹	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE.	
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; ¹ b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and	

For each	You must meet the following requirement, except during periods of startup	During periods of startup you must
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

¹Sources 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.

[78 FR 6709, Jan. 30, 2013]

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

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

For each	Complying with the requirement to	You must
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. ¹
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. 1
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 250≤HP≤500 located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. ¹
4. Existing non-emergency, non-black start CI stationary RICE >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

¹After 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.

²If 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.

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

As stated in $\S\S63.6610$, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

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

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. 2SLB, 4SLB, and CI stationary RICE	a. reduce CO emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For CO and O₂ measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure the O_2 at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ^{ac} (heated probe not necessary)	(b) Measurements to determine O ₂ must be made at the same time as the measurements for CO concentration.
		iii. Measure the CO at the inlet and the outlet of the control device	(1) ASTM D6522-00 (Reapproved 2005) ^{abc} (heated probe not necessary) or Method 10 of 40 CFR part 60, appendix A-4	(c) The CO concentration must be at 15 percent O ₂ , dry basis.

For each	Complying with the requirement to	You must	Using	According to the following requirements
2. 4SRB stationary RICE	a. reduce formaldehyde emissions	i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and		(a) For formaldehyde, O₂, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A.
		ii. Measure O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ^a (heated probe not necessary)	(a) Measurements to determine O ₂ concentration must be made at the same time as the measurements for formaldehyde or THC concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 ^a	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure 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 ^a , provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device	(1) Method 25A, reported as propane, of 40 CFR part 60, appendix A-7	(a) THC concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

For each	Complying with the requirement to	You must	Using	According to the following requirements
3. Stationary RICE		i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and		(a) For formaldehyde, CO, O₂, and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line (`3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A, the duct may be sampled at `3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A. If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) ^a (heated probe not necessary)	(a) Measurements to determine O ₂ concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iii. Measure moisture content of the station- ary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 ^a	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		iv. Measure formalde- hyde at the exhaust of the station-ary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03 ^a , provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (2005) ^{ac} , Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03 ^a	(a) CO concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

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^aYou may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

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

[79 FR 11290, Feb. 27, 2014]

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

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

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

For each	Complying with the requirement to	You have demonstrated initial compliance if
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O ₂ or CO ₂ at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O ₂ or CO ₂ at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and

For each	Complying with the requirement to	You have demonstrated initial compliance if
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
9. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300 <hp≤500 an="" area="" at="" hap<="" located="" of="" source="" td=""><td>a. Reduce CO emissions</td><td>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.</td></hp≤500>	a. Reduce CO emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.

For each	Complying with the requirement to	You have demonstrated initial compliance if
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300 <hp≤500 an="" area="" at="" hap<="" located="" of="" source="" td=""><td>a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust</td><td>i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O₂, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.</td></hp≤500>	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O ₂ ;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in §63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O ₂ , or the average reduction of emissions of THC is 30 percent or more;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

[78 FR 6712, Jan. 30, 2013]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

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

For each	Complying with the requirement to	You must demonstrate continuous compliance by
source of HAP, new or reconstructed non-	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved ^a ; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and

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

For each	Complying with the requirement to	You must demonstrate continuous compliance by
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent. ^a
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit ^a ; and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit ^a ; and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

For each	Complying with the requirement to	You must demonstrate continuous compliance by
9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and

For each	Complying with the requirement to	You must demonstrate continuous compliance by	
		iii. Reducing these data to 4-hour rolling averages; and	
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.	
12. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and	
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and	
		iii. Reducing these data to 4-hour rolling averages; and	
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and	
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.	
13. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and	
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and	
		iii. Reducing these data to 4-hour rolling averages; and	
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.	

For each	Complying with the requirement to	You must demonstrate continuous compliance by
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O ₂ ; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in §63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O ₂ , or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to §63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

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

[78 FR 6715, Jan. 30, 2013]

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

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

For each	You must submit a	The report must contain	You must submit the report
1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or	i. Semiannually according to the requirements in §63.6650(b)(1)-(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)-(9) for engines that are limited use stationary RICE subject to numerical emission limitations.
		b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or	i. Semiannually according to the requirements in §63.6650(b).
		c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).	i. Semiannually according to the requirements in §63.6650(b).
2. New or reconstructed non- emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and	i. Annually, according to the requirements in §63.6650.
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in §63.6650(b)(1)-(5).

For each	You must submit a	The report must contain	You must submit the report
4. Emergency stationary RICE that operate or are contractually obligated to be available for more than 15 hours per year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operate for the purposes specified in §63.6640(f)(4)(ii)	Report	a. The information in §63.6650(h)(1)	i. annually according to the requirements in §63.6650(h)(2)-(3).

[78 FR 6719, Jan. 30, 2013]

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

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

General provisions citation	provisions Subject of citation		Explanation	
§63.1	General applicability of the General Provisions	Yes.		
§63.2	Definitions	Yes	Additional terms defined in §63.6675.	
§63.3	Units and abbreviations	Yes.		
§63.4	Prohibited activities and circumvention	Yes.		
§63.5	Construction and reconstruction	Yes.		
§63.6(a)	Applicability	Yes.		
§63.6(b)(1)-(4)	Compliance dates for new and reconstructed sources	Yes.		
§63.6(b)(5)	Notification	Yes.		
§63.6(b)(6)	[Reserved]			
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.		
§63.6(c)(1)-(2)	Compliance dates for existing sources	Yes.		
§63.6(c)(3)-(4)	[Reserved]			
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.		
§63.6(d)	[Reserved]			
§63.6(e)	Operation and maintenance	No.		
§63.6(f)(1)	Applicability of standards	No.		
§63.6(f)(2)	Methods for determining compliance	Yes.		
§63.6(f)(3)	Finding of compliance	Yes.		
§63.6(g)(1)-(3)	Use of alternate standard	Yes.		
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.	
§63.6(i)	Compliance extension procedures and criteria	Yes.		

General provisions citation	Subject of citation	Applies to subpart	Explanation	
§63.6(j)	Presidential compliance exemption	Yes.		
§63.7(a)(1)-(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.	
§63.7(a)(3)	CAA section 114 authority	Yes.		
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.	
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.	
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.	
§63.7(d)	Testing facilities	Yes.		
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.	
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.	
§63.7(e)(3)	Test run duration	Yes.		
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.		
§63.7(f)	Alternative test method provisions	Yes.		
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.		
§63.7(h)	Waiver of tests	Yes.		
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.	
§63.8(a)(2)	Performance specifications	Yes.		
§63.8(a)(3)	[Reserved]			
§63.8(a)(4)	Monitoring for control devices	No.		
§63.8(b)(1)	Monitoring	Yes.		
§63.8(b)(2)-(3)	Multiple effluents and multiple monitoring systems	Yes.		
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.		
§63.8(c)(1)(i)	Routine and predictable SSM	No		
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.		
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	No		
§63.8(c)(2)-(3)	Monitoring system installation	Yes.		
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).	
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.	
§63.8(c)(6)-(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.	

General provisions citation	Subject of citation	Applies to subpart	Explanation	
§63.8(d)	CMS quality control	Yes.		
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.	
		Except that §63.8(e) only applies as specified in §63.6645.		
§63.8(f)(1)-(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.	
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.	
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.	
§63.9(a)	Applicability and State delegation of notification requirements	Yes.		
§63.9(b)(1)-(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.	
		Except that §63.9(b) only applies as specified in §63.6645.		
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.	
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.	
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.	
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.	
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.	
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.	
		Except that §63.9(g) only applies as specified in §63.6645.		
§63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.	
			Except that §63.9(h) only applies as specified in §63.6645.	
§63.9(i)	Adjustment of submittal deadlines	Yes.		
§63.9(j)	Change in previous information	Yes.		
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.		

General provisions citation	Subject of citation	Applies to subpart	Explanation	
§63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.	
§63.10(b)(2)(i)-(v)	Records related to SSM	No.		
§63.10(b)(2)(vi)- (xi)	Records	Yes.		
§63.10(b)(2)(xii)	Record when under waiver	Yes.		
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.	
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.		
§63.10(b)(3)	Records of applicability determination	Yes.		
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)-(4) and (9) are reserved.	
§63.10(d)(1)	General reporting requirements	Yes.		
§63.10(d)(2)	Report of performance test results	Yes.		
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.	
§63.10(d)(4)	Progress reports	Yes.		
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.		
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.		
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.	
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.	
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.	
§63.10(f)	Waiver for recordkeeping/reporting	Yes.		
§63.11	Flares	No.		
§63.12	State authority and delegations	Yes.		
§63.13	Addresses	Yes.		
§63.14	Incorporation by reference	Yes.		
§63.15	Availability of information	Yes.		

[75 FR 9688, Mar. 3, 2010, as amended at 78 FR 6720, Jan. 30, 2013]

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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 (O₂) 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 (O₂).

Analyte	CAS No.	Sensitivity
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O ₂)	7782-44- 7	

1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O₂, 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 O₂ 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 O₂ concentrations. The measurement system consists of the following major subsystems:

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- 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 O₂ and moisture in the electrolyte reserve and provides a mechanism to degas 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.

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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 NO₂ 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 O₂ 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 O₂; 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.

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6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 Reagents and Standards. What calibration gases are needed?

- 7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O_2 . Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ± 5 percent of the label value. Dry ambient air (20.9 percent O_2) is acceptable for calibration of the O_2 cell. If needed, any lower percentage O_2 calibration gas must be a mixture of O_2 in nitrogen.
- 7.1.1 Up-Scale CO Calibration Gas Concentration. Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.
- 7.1.2 Up-Scale O₂ Calibration Gas Concentration.

Select an O_2 gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O_2 . When the average exhaust gas O_2 readings are above 6 percent, you may use dry ambient air (20.9 percent O_2) for the up-scale O_2 calibration gas.

7.1.3 Zero Gas. Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO₂).

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 O₂ concentrations.
- 8.3 EC Cell Rate. Maintain the EC cell sample flow rate so that it does not vary by more than ±10 percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than ±3 percent, as instructed by the EC cell manufacturer.

9.0 Quality Control (Reserved)

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10.0 Calibration and Standardization

- 10.1 Pre-Sampling Calibration. Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.
- 10.1.1 Zero Calibration. For both the O_2 and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.
- 10.1.2 Zero Calibration Tolerance. For each zero gas introduction, the zero level output must be less than or equal to ± 3 percent of the up-scale gas value or ± 1 ppm, whichever is less restrictive, for the CO channel and less than or equal to ± 0.3 percent O₂ for the O₂ channel.
- 10.1.3 Up-Scale Calibration. Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this "sample conditioning phase" once per minute until readings are constant for at least two minutes. Then begin the "measurement data phase" and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the "refresh phase" by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).
- 10.1.4 Up-Scale Calibration Error. The mean of the difference of the "measurement data phase" readings from the reported standard gas value must be less than or equal to ± 5 percent or ± 1 ppm for CO or ± 0.5 percent O₂, whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single "measurement data phase" reading must be less than or equal to ± 2 percent or ± 1 ppm for CO or ± 0.5 percent O₂, 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 O₂ concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the "measurement data phase".

13.0 Protocol Performance

Use the following protocols to verify consistent analyzer performance during each field sampling day.

13.1 Measurement Data Phase Performance Check. Calculate the mean of the readings from the "measurement data phase". The maximum allowable deviation from the mean for each of the individual readings is ±2 percent, or ±1 ppm,

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whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

Example: A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than ± 2 percent $or \pm 1$ 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 NO₂ gas standards that are generally recognized as representative of diesel-fueled engine NO and NO₂ emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.
- 13.2.1 Interference Response. The combined NO and NO $_2$ interference response should be less than or equal to ± 5 percent of the up-scale CO calibration gas concentration.
- 13.3 Repeatability Check. Conduct the following check once for each nominal range that is to be used on the CO EC cell within 5 days prior to each field sampling program. If a field sampling program lasts longer than 5 days, repeat this check every 5 days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.
- 13.3.1 Repeatability Check Procedure. Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow Section 10.1.3. Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.
- 13.3.2 Repeatability Check Calculations. Determine the highest and lowest average "measurement data phase" CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The absolute value of the difference between the maximum and minimum average values recorded must not vary more than ±3 percent or ±1 ppm of the up-scale gas value, whichever is less restrictive.
- 14.0 Pollution Prevention (Reserved)
- 15.0 Waste Management (Reserved)
- 16.0 Alternative Procedures (Reserved)

17.0 References

- (1) "Development of an Electrochemical Cell Emission Analyzer Test Protocol", Topical Report, Phil Juneau, Emission Monitoring, Inc., July 1997.
- (2) "Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers, and Process Heaters Using Portable Analyzers", EMC Conditional Test Protocol 30 (CTM-30), Gas Research Institute Protocol GRI-96/0008, Revision 7, October 13, 1997.
- (3) "ICAC Test Protocol for Periodic Monitoring", EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean Air Companies, September 8, 1999.
- (4) "Code of Federal Regulations", Protection of Environment, 40 CFR, Part 60, Appendix A, Methods 1-4; 10.

Table 1: Appendix A—Sampling Run Data.

		Fac	cility			Engine I.	D		_ Date			
Run Type:		(_)				_)			(_)			(_)
(X)	Pre-Sa	ample Ca	alibratio	on	Stack Ga	s Sample	•	Post-Sai	mple Cal. Che	eck	Rep	eatability Check
Run #	1	1	2	2	3	3	4	4	Time	Scr	ub. K	Flow- Rate
Gas	O ₂	СО	O ₂	CC	O ₂	CO	O ₂	CO				
Sample Cond. Phase												
m .												
"												
m .												
m .												
Measurement Data Phase												
"												
"												
"												
"												
"												
"												
m .												
"												
m .												
"												
Mean												
Refresh Phase												
m												
m .												
m												
m .												

[78 FR 6721, Jan. 30, 2013]

Attachment C

Part 70 Operating Permit No: 025-36919-00002

[Downloaded from the eCFR on September 30, 2014]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

What This Subpart Covers

§60.4200 Am I subject to this subpart?

- (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
- (1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:
- (i) 2007 or later, for engines that are not fire pump engines;
- (ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.
- (2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:
- (i) Manufactured after April 1, 2006, and are not fire pump engines, or
- (ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.
- (3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.
- (4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.
- (b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.
- (c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.
- (d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for

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engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

Emission Standards for Manufacturers

§60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

- (a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.
- (b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year nonemergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.
- (c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.
- (d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:
- (1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;
- (2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and
- (3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.
- (e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:
- (1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

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- (2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.
- (f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:
- (1) Areas of Alaska not accessible by the Federal Aid Highway System (FAHS); and
- (2) Marine offshore installations.
- (g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

§60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

- (a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.
- (1) For engines with a maximum engine power less than 37 KW (50 HP):
- (i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and
- (ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.
- (2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.
- (b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.
- (1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.
- (2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.
- (c) [Reserved]
- (d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

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- (e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:
- (1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;
- (2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;
- (3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and
- (4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.
- (f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:
- (1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and
- (2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.
- (g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:
- (1) Areas of Alaska not accessible by the FAHS; and
- (2) Marine offshore installations.
- (h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

§60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the certified emissions life of the engines.

[76 FR 37968, June 28, 2011]

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Emission Standards for Owners and Operators

§60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

- (a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).
- (b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.
- (c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:
- (1) For engines installed prior to January 1, 2012, limit the emissions of NO_X in the stationary CI internal combustion engine exhaust to the following:
- (i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);
- (ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and
- (iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.
- (2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NO_X in the stationary CI internal combustion engine exhaust to the following:
- (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
- (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.
- (3) For engines installed on or after January 1, 2016, limit the emissions of NO_X in the stationary CI internal combustion engine exhaust to the following:
- (i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii) $9.0 \cdot n^{-0.20}$ g/KW-hr (6.7 $\cdot n^{-0.20}$ g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and
- (iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.
- (4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).
- (d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in §60.4212.

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(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

§60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

- (a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).
- (b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.
- (c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.
- (d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.
- (1) For engines installed prior to January 1, 2012, limit the emissions of NO_X in the stationary CI internal combustion engine exhaust to the following:
- (i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and
- (iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.
- (2) For engines installed on or after January 1, 2012, limit the emissions of NO_X in the stationary CI internal combustion engine exhaust to the following:
- (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
- (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.
- (3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).
- (e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in §60.4212.
- (f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

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[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

[76 FR 37969, June 28, 2011]

Fuel Requirements for Owners and Operators

§60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

- (a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).
- (b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
- (c) [Reserved]
- (d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).
- (e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

Other Requirements for Owners and Operators

§60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?

- (a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
- (b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.
- (c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.
- (d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

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- (e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.
- (f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.
- (g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.
- (h) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.
- (i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

- (a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.
- (b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

Compliance Requirements

§60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

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- (b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and (e) and §60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.
- (c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.
- (1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.
- (2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:
- (i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.
- (ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.
- (iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.
- (3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.
- (i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.
- (ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.
- (iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.
- (d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any

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such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

- (e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words "and stationary" after the word "nonroad" or "marine," as appropriate, to the label.
- (f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.
- (g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as "Fire Pump Applications Only".
- (h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.
- (i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

§60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

- (a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:
- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions:
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.
- (b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.
- (1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

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- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
- (3) Keeping records of engine manufacturer data indicating compliance with the standards.
- (4) Keeping records of control device vendor data indicating compliance with the standards.
- (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.
- (c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.
- (d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.
- (1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.
- (2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.
- (i) Identification of the specific parameters you propose to monitor continuously;
- (ii) A discussion of the relationship between these parameters and NO_X and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO_X and PM emissions;
- (iii) 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;
- (iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
- (v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
- (3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.
- (e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(e) or §60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.
- (1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e) or §60.4205(f), as applicable.

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- (2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.
- (f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
- (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
- (2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (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 paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
- (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
- (ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
- (iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
- (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
- (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the

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engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

- (g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:
- (1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.
- (2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.
- (3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013]

Testing Requirements for Owners and Operators

§60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

- (a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.
- (b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

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(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

NTE requirement for each pollutant = $(1.25) \times (STD)$ (Eq. 1)

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

- (a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.
- (b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).
- (c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.
- (d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.
- (1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad (Eq. 2)$$

Where:

 C_i = concentration of NO_X or PM at the control device inlet,

 C_o = concentration of NO_X or PM at the control device outlet, and

R = percent reduction of NO_X or PM emissions.

(2) You must normalize the NO_X or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_4 \frac{5.9}{20.9 - \% O_2}$$
 (Eq. 3)

Where:

 C_{adj} = Calculated NO_X or PM concentration adjusted to 15 percent O₂.

 C_d = Measured concentration of NO_X or PM, uncorrected.

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

 $%O_2$ = Measured O_2 concentration, dry basis, percent.

- (3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.
- (i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209_{E_0}}{F_a}$$
 (Eq. 4)

Where:

 F_0 = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O₂, percent/100.

 F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu).

 F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm3/J (dscf/106 Btu).

(ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent O₂, as follows:

$$X_{CO_1} = \frac{5.9}{F_o}$$
 (Eq. 5)

Where:

 $X_{CO2} = CO_2$ correction factor, percent.

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

(iii) Calculate the NO_X and PM gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_d}}{\%CO_2} \qquad (Eq. 6)$$

Where:

 C_{adj} = Calculated NO_X or PM concentration adjusted to 15 percent O₂.

 C_d = Measured concentration of NO_X or PM, uncorrected.

%CO₂ = Measured CO₂ concentration, dry basis, percent.

(e) To determine compliance with the NO_X mass per unit output emission limitation, convert the concentration of NO_X in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_4 \times 1.912 \times 10^{-3} \times Q \times T}{KW-hour} \qquad (Eq. 7)$$

Where:

ER = Emission rate in grams per KW-hour.

 C_d = Measured NO_X concentration in ppm.

 1.912×10^{-3} = Conversion constant for ppm NO_X to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW-hour} \qquad (E \neq \emptyset)$$

Where:

ER = Emission rate in grams per KW-hour.

C_{adj} = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

Notification, Reports, and Records for Owners and Operators

§60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

- (a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.
- (1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.
- (i) Name and address of the owner or operator;
- (ii) The address of the affected source;
- (iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- (iv) Emission control equipment; and
- (v) Fuel used.
- (2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.
- (i) All notifications submitted to comply with this subpart and all documentation supporting any notification.
- (ii) Maintenance conducted on the engine.
- (iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.
- (iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.
- (b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

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- (c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.
- (d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.
- (1) The report must contain the following information:
- (i) Company name and address where the engine is located.
- (ii) Date of the report and beginning and ending dates of the reporting period.
- (iii) Engine site rating and model year.
- (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
- (v) Hours operated for the purposes specified in §60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(2)(ii) and (iii).
- (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4211(f)(2)(ii) and (iii).
- (vii) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- (2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- (3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

[71 FR 39172, July 11, 2006, as amended at 78 FR 6696, Jan. 30, 2013]

Special Requirements

§60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

- (a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§60.4202 and 60.4205.
- (b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.
- (c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

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- (1) For engines installed prior to January 1, 2012, limit the emissions of NO_X in the stationary CI internal combustion engine exhaust to the following:
- (i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and
- (iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.
- (2) For engines installed on or after January 1, 2012, limit the emissions of NO_X in the stationary CI internal combustion engine exhaust to the following:
- (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
- (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.
- (3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§60.4216 What requirements must I meet for engines used in Alaska?

- (a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.
- (b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in areas of Alaska not accessible by the FAHS may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in sections §§60.4201(f) and 60.4202(g) of this subpart.
- (c) Manufacturers, owners and operators of stationary CI ICE that are located in areas of Alaska not accessible by the FAHS may choose to meet the applicable emission standards for emergency engines in §60.4202 and §60.4205, and not those for non-emergency engines in §60.4201 and §60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in §60.4201 and §60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.
- (d) The provisions of §60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS.
- (e) The provisions of §60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.
- (f) The provisions of this section and §60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

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[76 FR 37971, June 28, 2011]

§60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

[76 FR 37972, June 28, 2011]

General Provisions

§60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Definitions

§60.4219 What definitions apply to this subpart?

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

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and subcomponents comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

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

Date of manufacture means one of the following things:

- (1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.
- (2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.
- (3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

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Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in §60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

- (1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.
- (2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4211(f).
- (3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4211(f)(2)(ii) or (iii) and §60.4211(f)(3)(i).

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Freshly manufactured engine means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

Installed means the engine is placed and secured at the location where it is intended to be operated.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means the calendar year in which an engine is manufactured (see "date of manufacture"), except as follows:

- (1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see "date of manufacture"), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.
- (2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see "date of manufacture").

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas 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 internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011; 78 FR 6696, Jan. 30, 2013]

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007-2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007-2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)						
·	NMHC + NO _X	НС	NO _X	CO	PM		
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)		
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)		
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)		
37≤KW<56 (50≤HP<75)			9.2 (6.9)				
56≤KW<75 (75≤HP<100)			9.2 (6.9)				
75≤KW<130 (100≤HP<175)			9.2 (6.9)				
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)		
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)		
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)		
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)		

Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)						
	Model year(s)	NO _X + NMHC	CO	PM			
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)			
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)			
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)			

Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d) ¹
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

¹Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO _X	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)

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Maximum engine power	Model year(s)	NMHC + NO _X	СО	PM
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+1	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ ²	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

¹For model years 2011-2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed ¹	Torque (percent) ²	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

²For model years 2010-2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

³In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

As stated in $\S60.4213$, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥ 30 liters per cylinder:

Each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥ 30 liters per cylinder	a. Reduce NO _X emissions by 90 percent or more;	i. Select the sampling port location and number/location of traverse points at the inlet and outlet of the control device;		(a) For NO _X , O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O_2 concentration must be made at the same time as the measurements for NO_X concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO _X concentration.

¹Engine speed: ±2 percent of point.

²Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Each	Complying with the requirement to	You must	Using	According to the following requirements
		iv. Measure NO _X at the inlet and outlet of the control device.	(3) Method 7E of 40 CFR part 60, appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(d) NO _X concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	b. Limit the concentration of NO _X in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and number/location of traverse points at the exhaust of the stationary internal combustion engine;		(a) For NO _X , O ₂ , and moisture measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, appendix A-4.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(1) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurement for NO _X concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO _X concentration.
		iv. Measure NO _X at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device.	(3) Method 7E of 40 CFR part 60, Appendix A-4, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03 (incorporated by reference, see §60.17)	(d) NO _X concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

Each	Complying with the requirement to	You must	Using	According to the following requirements
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device.	(4) Method 5 of 40 CFR part 60, appendix A-3	(d) PM concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A-1	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A-3	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine.	(4) Method 5 of 40 CFR part 60, appendix A-3.	(d) PM concentration must be at 15 percent O_2 , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

[79 FR 11251, Feb. 27, 2014]

Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder.
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

Attachment D

Part 70 Operating Permit No: 025-36919-00002

Fugitive Dust Plan

Mulzer Crushed Stone, Inc. (Cape Sandy) 3/22/2016

- Adhere to 35-45 mph speed limit. Post signs along the haul road route, clearly indicating the speed limit.
- Place materials in proper stockpiles to limit runoff and place stockpiles out of traffic patterns.
- 3) Utilize water suppression when needed on roads.
- Control runoff so it does not saturate the surface of the unpaved haul road and cause track out.
- 5) If runoff is not or cannot be controlled, try applying gravel to the surface of the unpaved haul road over an area sufficient to control track out.
- 6) Utilize water suppression on crushing operations if needed.
- 7) Fugitive dust control methods from conveyor transfer points and screening operations include: limit drop heights of materials to assure a homogeneous flow of material; and Install, operate, and maintain water spray bars to control fugitive dust emissions at crusher drop points as necessary. Apply controls on a frequency that prevents visible fugitive emissions from exceeding applicable opacity limit.
- 8) Fugitive dust control methods from crushers and grinding mills shall include: limit drop heights of materials to assure a homogeneous flow of material; and install, operate, and maintain water spray bars to control fugitive dust emissions at crusher drop points as necessary.

Indiana Department of Environmental Management

Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Source Location: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

County: Crawford SIC Code: 1422

Permit Renewal No.: T025-36919-00002

Permit Reviewer: Monica Dick

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit Renewal application from Mulzer Crushed Stone, Inc. (Cape Sandy Facility), relating to the operation of a stationary limestone crushing and processing source consisting of five (5) stationary plants. On March 8, 2016, Mulzer Crushed Stone, Inc. submitted an application to the OAQ requesting to renew its operating permit. Mulzer Crushed Stone, Inc. was issued its second Part 70 Operating Permit Renewal T025-29526-00002 on December 9, 2011.

Source Definition

The source definition from the Part 70 Operating Permit Renewal was incorporated into the proposed permit as follows:

This stationary limestone crushing and processing company consists of five (5) plants all located at 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137:

- (a) Stationary Plant 1;
- (b) Stationary Plant 1A;
- (c) Stationary Plant 2;
- (d) Stationary Eleven's Plant; and
- (e) Stationary Sand Plant.

These five (5) plants are located on one or more contiguous properties have the same two digit SIC code and are still under common ownership; therefore, they are considered one (1) major source, as defined by 326 IAC 2-7-1(22). This conclusion was initially determined under Part 70 Operating Permit Renewal T025-29526-00002 on December 9, 2011.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

Stationary Plant 1 - Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Stationary Plant 1 are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983. Fugitive emissions are controlled by wet suppression.

Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

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(a) Four (4) limestone crushers identified as follows:

- (1) One (1) primary crusher, installed in 1986, capacity: 1,200 tons of limestone per hour;
- (2) One (1) secondary crusher, installed in 1986, capacity: 750 tons of limestone per hour:
- One (1) tertiary crusher, installed in 1962 (replaced with identical equipment in 1987), capacity: 250 tons of limestone per hour.
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to primary crusher.
- (4) One (1) tertiary crusher, installed in 1987, capacity: 250 tons of limestone per hour; and

[Under 40 CFR 60, Subpart OOO these crushers are considered an affected facility]

- (b) Twenty five (25) conveyors identified as follows:
 - (1) Three (3) conveyors, installed in 1986, capacity: 1,500 tons of limestone per hour, each;
 - (2) Twenty two (22) conveyors, installed in 1986, capacity: 1,000 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (c) Nine (9) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1986 (replaced in 2015), capacity: 1,200 tons of limestone per hour;
 - (2) One (1) secondary screen, installed in 1988, capacity: 1,250 tons of limestone per hour:
 - (3) Six (6) tertiary screens, installed in 1986, capacity: 820 tons of limestone per hour, each; and
 - (4) One (1) final screen, installed in 1986, capacity: 770 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO these screens are considered an affected facility]

- (d) Four (4) feeders as follows:
 - (1) One (1) feeder, installed in October of 1987, with an operating capacity of 1000 tons per hour;
 - One (1) feeder, installed in February of 2011, with an operating capacity of 200 tons per hour;
 - One (1) feeder, installed in October of 1987, with an operating capacity of 400 tons per hour; and

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(4) One (1) feeder, installed in October of 1987, with an operating capacity of 400 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

- (e) One (1) rock wash operation, identified as Wash Loadout Plant, consisting of dewatering screws, each installed in 1988 unless otherwise identified, as follows:
 - (1) One (1) multideck screen (3 decks), each deck with an operating capacity of 1250 tons per hour.

[Under 40 CFR 60, Subpart OOO this screen is considered an affected facility]

- (2) Five (5) conveyors, as follows:
 - (A) Four (4) conveyors, each with a capacity of 1250 ton per hour; and
 - (B) One (1) conveyor (moved to the Wash Loadout Plant from Plant 1A) installed in 1992, with a capacity of 500 ton per hour.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

(3) One (1) feeder, with a capacity of 1200 tons per hour.

[Under 40 CFR 60, Subpart OOO this feeder is considered an affected facility]

(f) One (1) truck loading and unloading operation, installed in 1988, capacity: 1,200 tons of limestone per hour, including one (1) bin installed in 1996, capacity: 150 tons of limestone.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

- Stationary Plant 1A Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Stationary Plant 1A are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983, except for the primary crusher. Fugitive emissions are controlled by wet suppression.
 - (g) Three (3) crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1962 (replaced in 2002) capacity: 800 tons of limestone per hour.
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to primary crusher.
 - (2) One (1) secondary crusher, installed in 1966 (replaced in 1992), capacity: 500 tons of limestone per hour.
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to primary crusher.
 - (3) One (1) tertiary crusher, installed in 1992, capacity: 400 tons of limestone per hour.

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[Under 40 CFR 60, Subpart OOO these crushers are considered an affected facility]

- (h) Three (3) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1992, capacity: 800 tons of limestone per hour.
 - (2) Two (2) final screens, installed in 1992, capacity: 500 tons of limestone per hour total.

[Under 40 CFR 60, Subpart OOO these screens are considered an affected facility]

- (i) Seventeen (17) conveyors identified as follows:
 - (1) Five (5) conveyors, installed in 1992, capacity: 1,000 tons of limestone per hour, each;
 - (2) Five (5) conveyors, installed in 1992, capacity: 800 tons of limestone per hour, each: and
 - (3) Six (6) conveyors, installed in 1992, capacity: 500 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (j) Three (3) feeders as follows:
 - (1) One (1) feeder, installed in July of 2011, with an operating capacity of 700 tons per hour;
 - One (1) feeder, installed in October of 1992, with an operating capacity of 750 tons per hour; each
 - One (1) feeder, installed in October of 1992, with an operating capacity of 400 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

(k) One (1) truck loading and unloading operation, installed in 1992, including two (2) bin loading operations, installed 1996, capacity: 1,200 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

Stationary Plant 2 - Fugitive emissions are controlled by wet suppression.

- (I) Five (5) crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1980, replaced with identical equipment in 1994, capacity: 1,200 tons of limestone per hour;
 - (2) One (1) secondary crusher, installed in 1980, capacity: 900 tons of limestone per hour;
 - One (1) tertiary crusher, installed in 1980, capacity: 750 tons of limestone per hour; and

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(4) Two (2) quaternary crushers, installed in 1980 (replaced in 1987), capacity: 370 tons of limestone per hour, each.

- (m) Seventeen (17) conveyors identified as follows:
 - (1) Three (3) conveyors, installed in 1980, capacity: 1,500 tons of limestone per hour, each;
 - (2) Six (6) conveyors, installed in 1980, capacity: 1,200 tons of limestone per hour; and
 - (3) Eight (8) conveyors, installed in 1980, capacity: 1,000 tons of limestone per hour, each.
- (n) Eight (8) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1980, capacity: 1,050 tons of limestone per hour;
 - One (1) secondary screen, installed in 1980, capacity: 1,150 tons of limestone per hour;
 - (3) One (1) tertiary screen, installed in 1980, capacity: 1,245 tons of limestone per hour; and
 - (4) Five (5) quaternary screens, installed in 1980, capacity: 1,195 tons of limestone per hour, each.
- (o) Four (4) feeders as follows:
 - (1) One (1) feeder, installed in February of 1988, with an operating capacity of 1200 tons per hour;
 - (2) One (1) feeder, installed in October of 1987, with an operating capacity of 150 tons per hour:
 - One (1) feeder, installed in April of 2011, with an operating capacity of 500 tons per hour; and
 - (4) One (1) feeder, installed in April of 2011, with an operating capacity of 500 tons per hour.
- (p) Two (2) truck loading operations, installed in 1980, capacity: 1,200 tons of limestone per hour, each.
- Eleven's Plant Under 40 CFR 60, Subpart OOO, the crushers, screens, and conveyors at Eleven's Plant are considered existing affected facilities that operate at a crushed stone plant with capacities greater than 136 megagrams (150 tons) per hour and constructed after August 31, 1983. Fugitive emissions are controlled by wet suppression.
 - (q) One (1) secondary crusher, installed in 1998, capacity: 390 tons of limestone per hour.[Under 40 CFR 60, Subpart OOO this crusher is considered an affected facility]
 - (r) One (1) screen, installed in 1998, capacity: 390 tons of limestone per hour.

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[Under 40 CFR 60, Subpart OOO this screen is considered an affected facility]

- (s) Fourteen (14) conveyors identified as follows:
 - (1) Three (3) stackers, installed in 1998, capacity: 300 tons of limestone per hour each;
 - (2) Four (4) conveyors, installed in 1998, capacity: 390 tons of limestone per hour, each; and
 - (3) Seven (7) conveyors, installed in 1998, capacity: 300 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (t) Two (2) feeders as follows:
 - (1) One (1) feeder, installed in June of 1998, with an operating capacity of 390 tons per hour; and
 - One (1) feeder, installed in June of 1998, with an operating capacity of 390 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

(u) One (1) feed hopper, one (1) feed belt and one (1) surge bin installed in 1998, with a combined loading and unloading capacity of 390 tons per hour.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

Sand Plant -

- (v) One (1) wet lime aggregate sand classifying plant, known as Sand Plant (SP), and storage pile created in 1993, with a capacity of 300 tons of limestone per hour, consisting of the following units [326 IAC 2-2]:
 - (1) Two (2) feeders, installed in 1992, with an operating capacity of 150 tons per hour each:
 - (2) One (1) screen, installed in 1992, with an operating capacity of 300 tons per hour; and
 - (3) Five (5) conveyors, installed in 1992, with an operating capacity of 300 tons per hour each.

Combustion Units

(w) One (1) diesel-fired 475 HP Plant 2 generator, manufactured in 2007, company number MY-0109.

[Under 40 CFR 63, Subpart ZZZZ (4Z) and 40 CFR, Subpart IIII (4I) this engine is considered an affected facility]

(x) Three (3) diesel generators identified as follows:

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(1) One (1) intermittent electric generator, identified as Eleven's Plant Generator, AG-1402, constructed in 1998, a catalytic convertor was added in 2015, with a capacity of 1400 HP.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

Underground Fan emergency engine, company number AG-0902, capacity of 1089 HP, manufactured in 1995 and start-up in 2001 at Cape Sandy.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

(3) Non-emergency Back-up Generator, company number AG-0901, capacity of 676 HP, manufactured in 1995 and start-up in 2001 at Cape Sandy.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

(y) Paved and unpaved roads [326 IAC 6-4].

Emission Units Added to the Source

The source also consists of the following emission units that were constructed and/or are operating without a permit:

- (1) One (1) primary screen, installed in 1986 (replaced in 2015), capacity: 1,200 tons of limestone per hour;
- (2) Three (3) breakers, with a capacity of 600 ton per hour, used prior to the crushers to occasionally size or un-jam limestone for crushing.
- (3) Six (6) comfort heaters consisting of the following:
 - (1) Three (3) LP-fired heaters with a maximum heat input rate of 0.14 MMBtu/hr, constructed in 2009;
 - (2) One (1) diesel heater with a maximum heat input rate of 0.35 MMBtu/hr, constructed in 1994; and
 - (3) One (1) diesel heater with a maximum heat input rate of 0.35 MMBtu/hr, constructed in 2012.
- (4) Eight (8) welding units that are equipped to perform flame cutting as follows:
 - (1) A maximum consumption of 5 pounds per hour of electrodes; and
 - (2) A maximum capacity of cutting a metal thickness of two (2) inches at a maximum rate of twelve (12) inches per minute.
- (5) Three (3) fifteen (15) gallon parts washer, each with a maximum usage of less than 15 lbs of VOC per day.
- (6) Three (3) portable mobile generators used for pumping water consisting of the following:
 - (1) One (1) 80 HP generator [Non Road Engine]; and

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(2) Two (1) 35.1 HP generators, identified as MG-1034 and MG-0134 [Non – Road Engines].

[The three (3) portable mobile generator engines are nonroad engines, as defined in 40 CFR 1068.30].

Emission Units and Pollution Control Equipment Removed From the Source

The source has removed the following emission units:

- (1) One (1) conveyor, identified as MJ0106, installed in 1986, capacity: 1,200 tons of limestone per hour at Stationary Plant 1.
- (2) One (1) primary screen, identified as MK0101, installed in 1986, capacity: 1,200 tons of limestone per hour at Stationary Plant 1A.

Insignificant Activities

The source also consists of the following insignificant activities:

- (a) Three (3) breakers, with a capacity of 600 ton per hour, used prior to the crushers to occasionally size or un-jam limestone for crushing.
- (b) Six (6) comfort heaters consisting of the following:
 - (1) Three (3) LP-fired heaters with a maximum heat input rate of 0.14 MMBtu/hr, constructed in 2009:
 - (2) One (1) diesel heater with a maximum heat input rate of 0.35 MMBtu/hr, constructed in 1994;
 - (3) One (1) diesel heater with a maximum heat input rate of 0.35 MMBtu/hr, constructed in 2012; and
 - (4) One (1) diesel and waste oil heater with a maximum heat input rate of 0.35 MMBtu/hr. constructed in 2008.
- (c) Eight (8) welding units that are equipped to perform flame cutting as follows:
 - (1) A maximum consumption of 5 pounds per hour of electrodes; and
 - (2) A maximum capacity of cutting a metal thickness of two (2) inches at a maximum rate of twelve (12) inches per minute.
- (d) Three (3) fifteen (15) gallon parts washer, each with a maximum usage of less than 15 lbs of VOC per day.
- (e) A petroleum fuel, other than gasoline, dispensing operation with a maximum capacity of dispensing less than or equal to 230,000 gallons per month, including ten (10) storage vessels having a storage capacity of less than or equal to 10,500 gallons and one (1) storage vessel having a storage capacity of 15,000 gallons;
- (f) The following VOC and HAP storage containers: vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids;

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(g) Equipment used exclusively for the following: packaging lubricants and greases.

- (h) Three (3) portable mobile generators used for pumping water consisting of the following:
 - (1) One (1) 80 HP generator, identified as MG-0133 [Non Road Engine]; and
 - (2) Two (1) 35.1 HP generators, identified as MG-1034 and MG-0134 [Non Road Engines];

[The three (3) portable mobile generator engines are nonroad engines, as defined in 40 CFR 1068.30].

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T025-29526-00002 on December 9, 2011. There have been no subsequent approvals issued.

Enforcement Issue

There are no pending enforcement actions related to this Renewal.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Crawford County.

Pollutant	Designation									
SO ₂	Better than national standards.									
CO	Unclassifiable or attainment effective November 15, 1990.									
O ₃	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹									
PM _{2.5}	Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard.									
PM _{2.5}	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard.									
PM ₁₀	Unclassifiable effective November 15, 1990.									
NO ₂	Cannot be classified or better than national standards.									
Pb	Unclassifiable or attainment effective December 31, 2011.									
¹ Unclassif	¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was									
revoked et	revoked effective June 15, 2005.									

(a) Ozone Standards

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

(b) PM_{2.5}
 Crawford County has been classified as attainment for PM_{2.5}. Therefore, direct PM_{2.5}, SO₂, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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(c) Other Criteria Pollutants

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

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestric	ted Potential Emissions
Pollutant	Tons/year
PM	19,626.62
PM ₁₀	5,070.89
PM _{2.5}	5,100.76
SO ₂	43.50
NO _x	294.15
VOC	12.04
СО	66.60
Single HAP	2.74
Total HAP	3.76

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146 4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

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(a) The potential to emit (as defined in 326 IAC 2-7-1(30)) of PM₁₀, PM_{2.5}, and NOx is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(b) The potential to emit any single HAP is less than 10 tons per year, and the potential to emit any combination of HAP is less than 25 tons per year. However, the Permittee wishes this source to remain permitted as a Title V source.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any new control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potent	ial To Em	it of the E	ntire So	urce After	Issuanc	e of Rene	wal (tons	/year)
Process/ Emission Unit	PM	PM ₁₀ *	PM _{2.5} **	SO ₂	NO _x	VOC	СО	Total HAPs	Worst Single HAP (Pb)
Crushing	22.92	12.32	12.32	-	-	-	-	-	-
Screening	151.17	70.51	70.51	-	-	-	-	-	-
Conveyor Transfer	31.10	10.22	10.22	-	-	-	-	-	-
Feeders	4.78	1.43	1.43	-	-	-	-	-	-
Diesel Generators	11.13	8.33	8.33	42.15	245.37	11.83	65.41	0.16	-
Diesel/Waste Oil Heater	3.61	3.12	3.12	0.78	0.22	0.01	0.05	3.46	2.74
Diesel Heaters	0.04	0.05	0.05	1.58	0.44	0.01	0.11	0.00	1
LP Heaters	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	-
Welding and Flame Cutting	9.15	9.15	9.15	-	-	-	-	0.13	-
Breakers	0.69	0.69	0.69	1	-	-	-	-	-
Parts Washers		ı	-	ı	-	0.26	ı	-	1
Petroleum Fuel Dispensing	-	-	-	1	-	0.04	-	-	ı
Total Non-Fugitive PTE of Entire Source	234.60	115.82	115.81	44.50	246.05	12.16	65.59	3.76	2.74
PSD Major Source Thresholds	250	250	250	250	250	250	250	NA	NA
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
Unpaved Roads	2,332.41	676.31	676.31	-	-	-	-	-	-
Loading and Unloading	36.75	36.75	36.75	-	-	-	-	-	-
Storage Piles	21.63	21.63	21.63	-	-	-	-	-	1
Total Fugitive PTE of Entire Source	2,390.79	734.69	734.69	-	-	-	-	-	-

^{*} Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant".

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional

^{**}PM_{2.5} listed is direct PM_{2.5}.

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Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (b) These emissions are based upon TSD Appendix A.
- (c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Federal Rule Applicability

CAM:

- (1) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each new or modified pollutant-specific emission unit that meets the following criteria:
 - (1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM), are not applicable to the crushing, screening, and conveying process operations at this source. The wet suppression system that is used at this source to comply with particulate emission limitations pursuant to 326 IAC 2-2 is considered a passive control measure. Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this Part 70 Operating Permit Renewal.

NSPS:

- (2) The requirements of the New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII, (326 IAC 12), are not included in the permit for the diesel generators identified as Eleven's Plant Generator engine, Underground Fan emergency engine, and Non-emergency Back-up Generator engine. The diesel generators were constructed prior to July 11, 2005, the applicability date of this rule.
- (3) The diesel-fired engine with an input of 475 HP is subject to the New Source Performance Standards for Standards of Performance for Stationary Compression

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Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII), which is incorporated by reference as 326 IAC 12, because the diesel-fired engine was constructed after 2007.

The engine subject to this rule includes the following:

(w) One (1) 475 HP diesel generator at Plant 2, manufactured in 2007, company number MY-0109.

[Under 40 CFR 63, Subpart ZZZZ (4Z) and 40 CFR, Subpart IIII (4I) this engine is considered an affected facility]

The diesel-fired 475 HP Plant 2 Generator is subject to the following portions of 40 CFR 60, Subpart IIII.

- (1) 40 CFR 60.4200
- (2) 40 CFR 60.4204(b)
- (3) 40 CFR 60. 4201(a)
- (4) 40 CFR 60. 4206
- (5) 40 CFR 60. 4207
- (6) 40 CFR 60. 4208
- (7) 40 CFR 60. 4209
- (8) 40 CFR 60.4211(a), (c), (g)
- (9) 40 CFR 60.4218
- (10) 40 CFR 60.4219
- (11) Table 8

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the diesel-fired 475 HP Plant 2 Generator except as otherwise specified in 40 CFR 60, Subpart IIII.

- (4) The requirements of the New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ, which is incorporated by reference as 326 IAC 12, are not included in the permit for the diesel generators. The diesel generators are not spark ignition engines.
- (5) The requirements of the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR 60, Subpart OOO, which is incorporated by reference as 326 IAC 12, are not included in the permit for the Stationary Sand Plant because pursuant to 40 CFR 60.670(a)(2), the plant is equipped with stand-alone screening and no crushers or conveyors, and is considered a wet material processing operation (as defined in 40 CFR 60.671).
- (6) The requirements of the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR 60, Subpart OOO, which is incorporated by reference as 326 IAC 12, are not included in the permit for the Stationary Plant 2 because construction of all of the crushers, screens, and conveyors at Stationary Plant 2 commenced prior to August 31, 1983.
- (7) Plant 1, Plant 1A, and Elevens Plant are still subject to the New Source Performance Standard for Nonmetallic Mineral Processing Plants (40 CFR 60, Subpart OOO), which is incorporated by reference as 326 IAC 12, because Plant 1, Plant 1A, and Elevens Plant have crushers, screens, and conveyors that were constructed after August 31, 1983, have capacities greater than 136 megagrams (150 tons) per hour as part of a crushed stone plant.

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Pursuant to 40 CFR 60.670(d)(1), if an existing facility is replaced by a piece of equipment of equal or smaller size, has the same function as the existing facility, and is not the replacement of all facilities on a production line, the new facility is exempt from the requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675. Pursuant to 40 CFR 60.676(a)(1). The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to Plant 1 tertiary crusher, Plant 1A primary crusher, and Plant 1A secondary crusher.

The facilities subject to this rule includes the following:

Stationary Plant 1 -

- (a) Four (4) limestone crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1986, capacity: 1,200 tons of limestone per hour:
 - One (1) secondary crusher, installed in 1986, capacity: 750 tons of limestone per hour;
 - One (1) tertiary crusher, installed in 1962 (replaced in 1987), capacity: 250 tons of limestone per hour.
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to primary crusher.
 - (4) One (1) tertiary crusher, installed in 1987, capacity: 250 tons of limestone per hour; and

[Under 40 CFR 60, Subpart OOO these crushers are considered an affected facility]

- (b) Twenty five (25) conveyors identified as follows:
 - (1) Three (3) conveyors, installed in 1986, capacity: 1,500 tons of limestone per hour, each;
 - (2) Twenty two (22) conveyors, installed in 1986, capacity: 1,000 tons of limestone per hour, each.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (c) Nine (9) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1986 (replaced in 2015), capacity: 1,200 tons of limestone per hour;
 - (2) One (1) secondary screen, installed in 1988, capacity: 1,250 tons of limestone per hour;
 - (3) Six (6) tertiary screens, installed in 1986, capacity: 820 tons of limestone per hour, each; and
 - (4) One (1) final screen, installed in 1986, capacity: 770 tons of limestone per hour.

[Under 40 CFR 60, Subpart OOO these screens are considered an affected facility]

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(d) Four (4) feeders as follows:

- (1) One (1) feeder, installed in October of 1987, with an operating capacity of 1000 tons per hour;
- One (1) feeder, installed in February of 2011, with an operating capacity of 200 tons per hour;
- One (1) feeder, installed in October of 1987, with an operating capacity of 400 tons per hour; and
- One (1) feeder, installed in October of 1987, with an operating capacity of 400 tons per hour.

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

- (e) One (1) rock wash operation, identified as Wash Loadout Plant, consisting of dewatering screws, each installed in 1988 unless otherwise identified, as follows:
 - (1) One (1) multideck screen (3 decks), each deck with an operating capacity of 1250 tons per hour.

[Under 40 CFR 60, Subpart OOO this screen is considered an affected facility]

- (2) Five (5) conveyors, as follows:
 - (A) Four (4) conveyors, each with a capacity of 1250 ton per hour; and
 - (B) One (1) conveyor, (moved to the Wash Loadout Plant from Plant 1A) installed in 1992, with a capacity of 500 ton per hour.

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

(3) One (1) feeder, with a capacity of 1200 tons per hour.

[Under 40 CFR 60, Subpart OOO this feeder is considered an affected facility]

(f) One (1) truck loading and unloading operation, installed in 1988, capacity: 1,200 tons of limestone per hour, including one (1) bin installed in 1996, capacity: 150 tons of limestone.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

Stationary Plant 1A -

- (g) Three (3) crushers identified as follows:
 - (1) One (1) primary crusher, installed in 1962 (replaced in 2002) capacity: 800 tons of limestone per hour;
 - The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to primary crusher.
 - One (1) secondary crusher, installed in 1966 (replaced in 1992), capacity: 500 tons of limestone per hour;

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The requirements of 40 CFR 60.672, 40 CFR 60.674, and 40 CFR 60.675 are not applicable to primary crusher.

One (1) tertiary crusher, installed in 1992, capacity: 400 tons of limestone per hour;

[Under 40 CFR 60, Subpart OOO these crushers are considered an affected facility]

- (h) Three (3) screening emission units identified as follows:
 - (1) One (1) primary screen, installed in 1992, capacity: 800 tons of limestone per hour:
 - (2) Two (2) final screens, installed in 1992, capacity: 500 tons of limestone per hour total;

[Under 40 CFR 60, Subpart OOO these screens are considered an affected facility]

- (i) Seventeen (17) conveyors identified as follows:
 - Five (5) conveyors, installed in 1992, capacity: 1,000 tons of limestone per hour, each;
 - (2) Five (5) conveyors, installed in 1992, capacity: 800 tons of limestone per hour, each:
 - (3) Six (6) conveyors, installed in 1992, capacity: 500 tons of limestone per hour, each:

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (j) Three (3) feeders as follows:
 - (1) one (1) feeder, installed in July of 2011, with an operating capacity of 700 tons per hour:
 - one (1) feeder, installed in October of 1992, with an operating capacity of 750 tons per hour;
 - one (1) feeder, installed in October of 1992, with an operating capacity of 400 tons per hour;

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

(k) One (1) truck loading and unloading operation, installed in 1992, including two (2) bin loading operations, installed 1996, capacity: 1,200 tons of limestone per hour;

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

Eleven's Plant -

(q) One (1) secondary crusher, installed in 1998, capacity: 390 tons of limestone per hour; [Under 40 CFR 60, Subpart OOO this crusher is considered an affected facility]

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(r) One (1) screen, installed in 1998, capacity: 390 tons of limestone per hour;

[Under 40 CFR 60, Subpart OOO this screen is considered an affected facility]

- (s) Fourteen (14) conveyors identified as follows:
 - (1) Three (3) stackers, installed in 1998, capacity: 300 tons of limestone per hour each;
 - (2) Four (4) conveyors, installed in 1998, capacity: 390 tons of limestone per hour, each;
 - (3) Seven (7) conveyors, installed in 1998, capacity: 300 tons of limestone per hour, each; and

[Under 40 CFR 60, Subpart OOO these conveyors are considered an affected facility]

- (t) Two (2) feeders as follows:
 - one (1) feeder, installed in June of 1998, with an operating capacity of 390 tons per hour;
 - one (1) feeder, installed in June of 1998, with an operating capacity of 390 tons per hour;

[Under 40 CFR 60, Subpart OOO these feeders are considered an affected facility]

(u) One (1) feed hopper, one (1) feed belt and one (1) surge bin installed in 1998, with a combined loading and unloading capacity of 390 tons per hour.

[Under 40 CFR 60, Subpart OOO this loading and unloading is considered an affected facility]

These facilities are subject to the following portions of 40 CFR 60, Subpart OOO.

- (1) 40 CFR 60.670
- (2) 40 CFR 60.671
- (3) 40 CFR 60.672(b),(d)
- (4) 40 CFR 60.673
- (5) 40 CFR 60.675(a),(c)(1)&(3), (e)(1)&(2)
- (6) 40 CFR 60.676 (a),(f),(g),(h),(i)(1),(j),(k)
- (7) Table 1
- (8) Table 3

The requirements of 40 CFR 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facilities except as otherwise specified in 40 CFR 60. Subpart OOO.

(8) The requirements of the New Source Performance Standards (NSPS) for Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, 40 CFR 60, Subpart Kb, (326 IAC 12), are not included in the permit. The storage vessels were constructed after July 23, 1984; however, each storage vessel has a storage capacity less than 75 cubic meters (19,812 gallons). Therefeore, 40 CFR 60, Subpart Kb is not applicable to the storage vessels.

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(9) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

NESHAP:

- (10) The 475 HP diesel-fired engine, 1400 HP diesel-fired engine, 1089 HP diesel-fired engine, and the 676 HP diesel-fired engine are still subject to the requirements of 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (326 IAC 20-82), because the 1400 HP diesel-fired engine, 1089 HP diesel-fired engine, and the 676 HP diesel-fired engine are considered existing (construction or reconstruction of each commenced before June 12, 2006) stationary reciprocating internal combustion engine (RICE) at an area source of hazardous air pollutants (HAP). The 475 HP diesel-fired engine is considered a new (construction commenced on or after June 12, 2006) stationary reciprocating internal combustion engine (RICE) at an area source of hazardous air pollutants (HAP). Construction of the 1400 HP diesel-fired engine, 1089 HP diesel-fired engine, and the 676 HP diesel-fired engines each commenced before June 12, 2006. Construction of the 475 HP diesel-fired engine commenced after June 12, 2006. The engines subject to this rule include the following:
 - (a) One (1) diesel-fired 475 HP Plant 2 generator, manufactured in 2007, company number MY-0109.

[Under 40 CFR 63, Subpart ZZZZ (4Z) and 40 CFR, Subpart IIII (4I) this engine is considered an affected facility]

- (b) Three (3) diesel generators identified as follows:
 - (1) One (1) intermittent electric generator, identified as Eleven's Plant Generator, AG-1402, constructed in 1998, a catalytic convertor was added in 2015, with a capacity of 1400 HP.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

(2) Underground Fan emergency engine, company number AG-0902, capacity of 1089 HP, manufactured in 1995 and start-up in 2001 at Cape Sandy.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

(3) Non-emergency Back-up Generator, company number AG-0901, capacity of 676 HP, manufactured in 1995 and start-up in 2001 at Cape Sandy.

[Under 40 CFR 63, Subpart ZZZZ this engine is considered an affected facility]

The diesel-fired emergency generators, identified as Eleven's Plant Generator, AG-1402, Plant 2 Generator, company number MY-0109, Underground Fan emergency engine, company number AG-0902, and Non-Emergency Back-up Generator, company number AG-0901 are subject to the following applicable portions of 40 CFR 63, Subpart ZZZZ:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(a)(1)(iii)
- (4) 40 CFR 63.6595(a)(6),(c)

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- (5) 40 CFR 63.6603(a)
- (6) 40 CFR 63.6604
- (7) 40 CFR 63.6605
- (8) 40 CFR 63.6612
- (9) 40 CFR 63.6615
- (10) 40 CFR 63.6620
- (11) 40 CFR 63.6625
- (12) 40 CFR 63.6630
- (13) 40 CFR 63.6635
- (14) 40 CFR 63.6640(a),(b)
- (15) 40 CFR 63.6645
- (16) 40 CFR 63.6650
- (17) 40 CFR 63.6655
- (18) 40 CFR 63.6660
- (19) 40 CFR 63.6665
- (20) 40 CFR 63.6670
- (21) 40 CFR 63.6675
- (22) Tables 1-8 (applicable portions)

475 HP Plant 2 Generator

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(a)(2)(iii) and (c)(1)
- (4) 40 CFR 63.6595(a)(6)
- (5) 40 CFR 63.6665
- (6) 40 CFR 63.6670
- (7) 40 CFR 63.6675

Pursuant to 40 CFR 63.6665, the 475 HP Plant 2 Generator does not have to meet the requirements of 40 CRF 63, Subpart A (General Provisions), since it is considered a new stationary RICE located at an area source of HAP emissions.

(11) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

The source is not one of the 28 listed source categories and has the potential to emit of at least one regulated pollutant greater than 250 tons per year. However, the source has chosen to take minor limits on PM, PM10, PM2.5, and NOx of less than two hundred fifty (250) tons per year. Therefore, this source is a minor source under 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

The uncontrolled PM, PM10, and PM2.5 emissions from Stationary Plant 1, Stationary Plant 1A, Stationary Plant 2, Eleven's Plant and Sand Plant are more than 250 tons per year. The PM, PM10, and PM2.5 emissions shall be limited to less than 250 tons per year and render the requirements of 326 IAC 2-2 not applicable.

- (a) The source wide crushed stone throughput shall not exceed 8,000,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The moisture content of the limestone processed shall not be less than 0.55%.

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(c) The nonfugitive particulate emissions from Stationary Plant 1 shall be limited to the following pound per ton rates:

Emission Units	PM Emissions (lb/ton)	PM ₁₀ / PM _{2.5} Emissions (lb/ton)
Each primary Crusher	0.0002	0.0002
Each secondary Crusher	0.0002	0.0002
Each Tertiary Crusher	0.0012	0.00054
Each Quaternary / Final Crusher	0.003	0.0012
Each primary Screen	0.0022	0.00074
Each secondary Screen	0.0022	0.00074
Each Tertiary Screen	0.0036	0.0022
Each Quaternary / Final Screen	0.0036	0.0022
Each conveyor transfer point	0.00014	0.000046
Feeders	0.003	0.0011

Compliance with above limits, combined with PM, PM10, and PM2.5 emissions from other emission units will limit the total source wide PM, PM10, and PM2.5 emissions to less than two-hudred fifty (250) tons per year and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to the source.

The uncontrolled NOx emissions from the diesel generators identified as Plant 2 Generator, company number ZVHH0109; Underground Fan, company number AG-0902; and Eleven's Plant Generator, AG-1402 are more than 250 tons per year. The NOx emissions from the internal combustion engines shall be limited to less than 250 tons per year and render the requirements of 326 IAC 2-2 not applicable.

- (a) The diesel generators identified as Plant 2 Generator, company number ZVHH0109; Underground Fan, company number AG-0902; and Eleven's Plant Generator, AG-1402; shall be limited to 6,575 hours of operation each per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) NOx emissions from the Plant 2 Generator, company number ZVHH0109, shall not exceed three hundredths (0.03) lb/hp-hr NOx.
- (c) NOx emissions from the Eleven's Plant Generator, AG-1402, the Underground Fan, company number AG-0902, and the Emergency Back-up Generator, company number AG-0901, shall each not exceed two hundredths (0.02) lb/hp-hr NOx.

Compliance with above limits, combined with NOx emissions from other emission units will limit the total source wide NOx emissions to less than two-hudred fifty (250) tons per year and render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to the source.

326 IAC 2-4.1-1 (Major Sources of Hazardous Air Pollutants (HAP))

No emission unit at the source will emit 10 tons per year or more of a single HAP or 25 tons per year or more of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source, not located in Lake, Porter, or LaPorte County, is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC and PM10 is less than 250 tons per year; and the potential to emit of CO, NOx, and SO2 is less than 2,500 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(2), triennial reporting is required. An emission statement shall be submitted in accordance with the

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> compliance schedule in 326 IAC 2-6-3 by July 1, 2018, and every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

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326 IAC 2-7-6(5) (Annual Compliance Cerification)

The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certification that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

326 IAC 5-1 (Opacity Limitations)

This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1)

326 IAC 6.5 PM Limitations Except Lake County

This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

326 IAC 6.8 PM Limitations for Lake County

This source is not subject to 326 IAC 6.8 because it is not located in Lake County.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires that the source not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations)

This rule applies to the following:

- (1) Any source of fugitive particulate matter emissions located in nonattainment areas for particulate matter except for such a source located in Lake County which has potential fugitive particulate matter emissions of twenty-five (25) tons per year or more.
- Any new source of fugitive particulate matter emissions, located anywhere in the state. (2) requiring a permit as set forth in 326 IAC 2, which has not received all the necessary preconstruction approvals before December 13, 1985. If any control measure established by this rule is inconsistent with an applicable control measure contained in 326 IAC 12, the more stringent measure shall apply.

The source has fugitive particulate emissions of greater than 25 tons per year. Therefore, it is subject to 326 IAC 6-5. Pursuant to 326 IAC 6-5, fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan, submitted on March 22, 2016, which is included as Attachment C to the permit.

State Rule Applicability Determination

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

- Pursuant to 326 IAC 6-3-1(b)(14), the following units are exempt from the requirements of 326 IAC 6-3-2 because each unit has an uncontrolled potential to emit less than 0.551 pounds of particulate per hour:
 - Plant 1 Secondary Crusher; (1)
 - Plant 1 Wash loadout Plant Feeder: (2)
 - Plant 1A Secondary Crusher; (3)

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- (4) Plant 2 150 ton per hour Feeder;
- (5) Eleven's Plant Secondary Crusher;
- (6) Sand Plant Feeders;
- (7) Welding and flame cutting; and
- (8) Breakers.

(b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) shall not exceed the following:

emission units	process weight rate of each emission unit (ton/hr)	emission limit for each emission unit (lb/hr)				
	Plant 1					
crusher	1,200	79.97				
each crusher	250	60.96				
each conveyor	1,500	82.95				
each conveyor	1,000	77.59				
each screen	1,200	79.97				
each screen	1,250	80.51				
each screen	820	75.05				
each screen	770	74.26				
each feeder	1,000	77.59				
each feeder	200	58.51				
each feeder	400	66.31				
	Plant 1 Wash Loadout Plant					
Multideck screen (3 decks)	each deck 1,250	each deck 80.51				
each conveyor	1,250	80.51				
conveyor	500	68.96				
,	Plant 1A					
crusher	800	74.74				
crusher	400	66.31				
screen	800	74.74				
each screen	250	60.96				
each conveyor	1,000	77.59				
each conveyor	800	74.74				
each conveyor	500	68.96				
feeder	700	73.06				
feeder	750	73.93				
feeder	400	66.31				
	Plant 2					
crusher	1,200	79.97				
crusher	900	76.23				
crusher	750	73.93				
each crusher	370	65.41				
each conveyor	1,500	82.95				
each conveyor	1,200	79.97				
each conveyor	1,000	77.59				
each screen	1,050	78.22				
screen	1,245	80.46				
each screen	1,195	79.91				
feeder	1,200	79.97				

Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Leavenworth, Indiana Permit Reviewer: Monica Dick

emission units	process weight rate of each emission unit (ton/hr)	emission limit for each emission unit (lb/hr)
each feeder	500	68.96
	Eleven's Plant	
screen	390	66.02
each conveyor	300	63.00
each feeder	390	66.02
	Sand Plant	
screen	300	63.00
each conveyor	300	63.00

These limits are determined by the following equations:

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

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

Plant 1 Screens, Plant 1A screens, and Plant 2 screens require wet suppression to comply with the 326 IAC 6-3-2 PM limit. All other emission units comply with the 326 IAC 6-3-2 PM limit without wet suppression.

(c) Pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emissions may exceed the emission limits shown paragraph (a), provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)

No individual emission unit at this source has the potential to emit twenty-five (25) tons per year of SO_2 or ten (10) pounds per hour of SO_2 . Therefore, the requirements of 326 IAC 7-1.1 are not applicable.

326 IAC 8-3 (Organic Solvent Degreasing Operations)

The source operates three (3) cold cleaner degreasers that use a VOC cleaner degreaser solvent. However, pursuant to 326 IAC 8-1-1 each cleaner has VOC emissions of less than 15 pounds per day. Therefore 326 IAC 8-3-2 and 326 IAC 8-3-8 do not apply.

326 IAC 8-4 (Petroleum Sources)

The source operates a petroleum fuel, other than gasoline, dispensing operation. However, pursuant to 326 IAC 8-1-1 each storage vessel associated with petroleum fuel dispensing has VOC emissions of less than 15 pounds per day, is not a petroleum refinery, or a gasoline dispensing facility. Therefore, 326 IAC 8-4 does not apply.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

The source operates a petroleum fuel, other than gasoline, dispensing operation. However, pursuant to 326 IAC 8-1-1 each storage vessel associated with petroleum fuel dispensing has VOC emissions of less than 15 pounds per day and has a storage capacity less than 39,000 gallons. Therefore, 326 IAC 8-9-6(a) and 6(b) do not apply.

Mulzer Crushed Stone, Inc. (Cape Sandy Facility) Leavenworth, Indiana Permit Reviewer: Monica Dick

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

(a) The compliance monitoring requirements applicable to this source are as follows:

Emission Unit	Parameter	Frequency	Range	Excursions and Exceedances
Plant 1 crushers, conveyors conveying, screens, feeders, and wash loadout plant (screens and conveyors) Plant 1A crushers, screens, conveyors, and feeders Plant 2 crushers, conveyors, screens, and feeders	Visible Emissions	Daily	Normal- Abnormal	Response Steps
Eleven's Plant				
screen , conveyors, and feeders				
Sand Plant				
screen and conveyors				

These monitoring conditions are necessary to verify proper operation and fugitive dust control plan measures and ensure compliance with 326 IAC 6-3 (Process Operations) and minor limit for 326 IAC 2-2 (PSD).

(b) Testing requirements are not required since there are no pollution control devices. Compliance with 326 IAC 6-3 (Process Operations) and the minor limit for 326 IAC 2-2 (PSD) is extablished by throughput limits and maintaining wet suppression on the aggregate processes.

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 8,2016.

Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Leavenworth, Indiana Permit Reviewer: Monica Dick Page 26 of 26 Title V Renewal No. T025-36919-00002

Conclusion

The operation of this stationary limestone crushing and processing source shall be subject to the conditions of this Part 70 permit T025-36919-00002.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Monica Dick at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-1243 or toll free at 1-800-451-6027 extension 4-1243.
- (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 Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emissions Calculations Emissions Summary

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Permit Renewal No.: T025-36919-00002

Reviewer: Monica Dick

Unlimited/Uncontrolled Potential to Emit (tons/year)													
Process Description				Haz	Hazardous Air Pollutants								
		PM	PM ₁₀	PM _{2.5}	SO ₂	NOx	voc	со	Total HAPs	Worst Case HAP			
All Plants Non-fugitive													
Crushing		183.03	83.56	56.62	-	-	-	-	-	-			
Screening		18,399.99	4,500.12	1,635.10	-	-	-	-	-	-			
Conveyor Transfer		851.60	312.25	51.75	-	-		-	-	-			
Feeders		78.31	33.92	33.92	-	-		-	-	-			
Diesel Generators		11.13	8.33	8.33	42.15	289.26	11.83	65.41	0.16	-			
Diesel/Waste Oil Heater		3.61	3.12	3.12	0.78	0.22	0.01	0.05	3.46	2.74	Pb		
Diesel Heaters		0.04	0.05	0.05	1.58	0.44	0.01	0.11	0.00	-			
LP Heaters		0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	-			
Welding and Flame Cutting		9.15	9.15	9.15	-	-		-	0.13	-			
Breaker (maintenance activity)		0.69	0.69	0.69									
Parts Washers		-	-	-	-	-	0.26	-	-	-			
Petroleum Fuel Dispensing		-	-	-	-	-	0.04	-	-	-			
	Total	19,524.07	4,938.19	1,785.72	42.15	289.26	12.16	65.41	3.76	2.74	Pb		
All Plants Fugitive Sources													
Unpaved Roads		2,332.41	676.31	676.31	-	-	-	-	-	-	•		
Loading and Unloading		36.75	36.75	36.75	-	-		-	-	-			
Storage Piles		21.63	21.63	21.63	-	-	-	-	-	-	·		

				Limited						
Process Description			Criteria	(tons/year) Pollutants				Ha	zardous A	ir Pollutants
·	РМ	PM ₁₀	PM _{2.5}	SO ₂	NOx	voc	со	Total HAPs	Wo	orst Case HAP
All Plants Non-fugitive										
Crushing	22.92	12.32	12.32	-	-	-	-	-	-	
Screening	151.17	70.51	70.51	-	-	-	-	-	-	
Conveyor Transfer	31.10	10.22	10.22	-	-	-	-	-	-	
Feeders	4.78	1.43	1.43	-	-	-	-	-	-	
Diesel Generators	11.13	8.33	8.33	42.15	245.37	11.83	65.41	0.16	-	
Diesel/Waste Oil Heater	3.61	3.12	3.12	0.78	0.22	0.01	0.05	3.46	2.74	Pb
Diesel Heaters	0.04	0.05	0.05	1.58	0.44	0.01	0.11	0.00	-	
LP Heaters	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	-	
Welding and Flame Cutting	9.15	9.15	9.15	-	-	-	-	0.13	-	
Breaker (maintenance activity)	0.69	0.69	0.69							
Parts Washers	-	-	-	-	-	0.26	-	-	-	
Petroleum Fuel Dispensing	-	-	-	-	-	0.04	-	-	-	
Total	234.60	115.82	115.81	44.50	246.05	12.16	65.59	3.76	2.74	Benzene
All Plants Fugitive Sources										
Unpaved Roads	2,332.41	676.31	676.31	-	-	-	-	-	-	
Loading and Unloading	36.75	36.75	36.75	-	-	-	-	-	-	-
Storage Piles	21.63	21.63	21.63	-	-	-	-	-	-	-

No emission are associated with the storage of VOC and HAP containers, packaging equipment, and wet coal unloading/loading and storage.

Administrativ Change - Modification to the Plant

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Permit Renewal No.: T025-36919-00002
Reviewer: Monica Dick

Plant 1 production line was modified to replace a primary screen on December 14, 2015 Uncontrolled Potential Emissions Before Modification

	Emission Unit	Capacity	Emiss	ion Factor (lb/ton)	Potent	ial emissions	(lbs/hr)	Potential emissions (tons/yr)			
	Emission omt		PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}	
Г	Plant 1 Primary Screen	1200	0.025	0.0087	0.0087	30.00	10.44	10.44	131.40	45.73	45.73	

Uncontrolled Potential Emissions After Modification (2015)

Emission Unit	Capacity	Emiss	ion Factor (lb/ton)	Potent	ial emissions	(lbs/hr)	Potential emissions (tons/yr)			
Emission Unit		PM	PM ₁₀	$PM_{2.5}$	PM	PM PM ₁₀		PM	PM ₁₀	$PM_{2.5}$	
Plant 1 Primary Screen	1200	0.025	0.0087	0.0087	30.00	10.44	10.44	131.40	45.73	45.73	

Emission Factors

AP-42 Ch.11.19.2, Table 11.19.2-2. EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS (Fifth edition, 8/2004)

Methodology

Emission (tons/yr) = [Capacity (tons/hr) x Emission Factor (lb/ton)] x 8760 hr/yr / 2,000 lb/ton

Sourcewide new and modified emission units

Emission Unit	date constructed	total PM for unit	total PM increase	total PM for year	total PM10/PM2.5 for unit	total PM10/PM2.5 increase	total PM10/PM2.5 for year	total SO2 for unit	total SO2 increase	total SO2 for year	total NOx for unit	total NOx increase		total VOC for unit	total VOC increase	total VOC for year
Plant 1 Primary Screen	2015	131.40	0.00	0.26	0.00	0.00	0.26	-	-		-	-		-	-	
Welder/cutting torch	2015	0.26	0.26	0.20	0.26	0.26	0.20	-	-	- [-	-	-	-	ı	_
Welder/cutting torch	2012	0.26	0.26	0.26	0.26	0.26	0.26	-	-	-	-	-	-	-	-	-
Welder/cutting torch	2005	0.26	0.26	0.26	0.26	0.26	0.26	-	-	-	-	-	-	-	-	-
Four (4) welder/cutting torchs	1998	1.04	1.04		1.04	1.04		-	-		-	-			-	0.26
Three (3) Breakers	No date	0.69	0.69	1.78	0.69	0.69	4 70			4.50			0.47	-	-	
Six (6) heaters	No date	0.04	0.04	1.70	0.05	0.05	1.79	1.58	1.58	1.58	0.47	0.47	0.47	-	-	
Three (3) parts washers	No date	-	-		-	-		-	-		-	-		0.26	0.26	
Welder/cutting torch	1996	0.26	0.26	0.26	0.26	0.26	0.26	-	-	-	-	-	-	-	-	-
Exemption/insignificant thresholds				5			5			10			10			10

The emissions from the three portable mobile generators are not counted toward the stationary source emissions.

As a worst case evaluation of whether a permit was required for the non-permitted units the units without construction dates were totaled and added to the worst case annual emissions sur

No annual construction project was greater than exemption thresholds. Therefore, all construction and operation of new equipment was administrative in nature no construction or operation approval was required.

Appendix A: Emissions Calculations Particlate from Crushing, Screening, and Conveying - Stone Processing Uncontrolled Potential Emissions

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)
Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Permit Renewal No.: T025-36919-00002
Reviewer: Monica Dick

Emission Unit	Number of emission	Capacity	Emiss	sion Factor (lb/ton)	Potenti	al emissions	(lbs/hr)	Potentia	ıl emissions ((tons/yr)
Limssion one	units	(tons/hr)	PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}
				Plant 1							
Primary Crusher	1	1200	0.0007	0.0007	0.0007	0.84	0.84	0.84	3.68	3.68	3.68
Secondary Crusher	1	750	0.0007	0.0007	0.0007	0.53	0.53	0.53	2.30	2.30	2.30
Tertiary Crusher	2	250	0.0054	0.0024	0.0024	2.70	1.20	0.60	11.83	5.26	2.63
Conveyors	3	1500	0.003	0.0011	0.0011	13.50	4.95	1.65	59.13	21.68	7.23
Conveyors	22	1000	0.003	0.0011	0.0011	66.00	24.20	1.10	289.08	106.00	4.82
Primary Screen	1	1200	0.025	0.0087	0.0087	30.00	10.44	10.44	131.40	45.73	45.73
Secondary Screen	1	1250	0.025	0.0087	0.0087	31.25	10.88	10.88	136.88	47.63	47.63
Tertiary Screen	6	820	0.3	0.072	0.072	1476.00	354.24	59.04	6464.88	1551.57	258.60
Tertiary Screen	1	770	0.3	0.072	0.072	231.00	55.44	55.44	1011.78	242.83	242.83
Feeder Feeder	1	1000 200	0.003	0.0011 0.0011	0.0011 0.0011	3.00 0.60	1.10 0.22	1.10 0.22	13.14 2.63	4.82 0.96	4.82 0.96
Feeders	2	400	0.003	0.0011	0.0011	2.40	0.22	0.22	5.26	1.93	1.93
Feeders	2	400		h Loadout F		2.40	0.66	0.44	5.20	1.93	1.93
Screens	3	1250	0.025	0.0087	0.0087	93.75	32.63	10.88	136.88	47.63	47.63
Conveyors	4	1250	0.023	0.0007	0.0087	15.00	5.50	1.38	16.43	6.02	6.02
Conveyor	1	500	0.003	0.0011	0.0011	1.50	0.55	0.55	6.57	2.41	2.41
Feeder	1	1200	0.0003	0.0011	0.0011	0.36	1.32	1.32	1.58	5.78	5.78
i ccdci	·	1200	0.0000	Plant 1A	0.0011	0.00	1.02	1.02	1.00	0.10	0.70
Primary Crusher	1	800	0.0007	0.0007	0.0007	0.56	0.56	0.56	2.45	2.45	2.45
Secondary Crusher	1	500	0.0007	0.0007	0.0007	0.35	0.35	0.35	1.53	1.53	1.53
Tertiary Crusher	1	400	0.0054	0.0024	0.0024	2.16	0.96	0.96	9.46	4.20	4.20
Primary Screen	1	800	0.025	0.0087	0.0087	20.00	6.96	6.96	87.60	30.48	30.48
Quaternary-Final Screen	2	250	0.3	0.072	0.072	150.00	36.00	18.00	657.00	157.68	78.84
Conveyors	5	1000	0.003	0.0011	0.0011	15.00	5.50	1.10	65.70	24.09	4.82
Conveyors	5	800	0.003	0.0011	0.0011	12.00	4.40	0.88	52.56	19.27	3.85
Conveyors	6	500	0.003	0.0011	0.0011	9.00	3.30	0.55	39.42	14.45	2.41
Feeder	1	700	0.003	0.0011	0.0011	2.10	0.77	0.77	9.20	3.37	3.37
Feeder	1	750	0.003	0.0011	0.0011	2.25	0.83	0.83	9.86	3.61	3.61
Feeder	1	400	0.003	0.0011	0.0011	1.20	0.44	0.44	5.26	1.93	1.93
				Plant 2							
Primary Crusher	1	1200	0.0007	0.0007	0.0007	0.84	0.84	0.84	3.68	3.68	3.68
Secondary Crusher	1	900	0.0007	0.0007	0.0007	0.63	0.63	0.63	2.76	2.76	2.76
Tertiary Crusher	1	750	0.0054	0.0024	0.0024	4.05	1.80	1.80	17.74	7.88	7.88
Quaternary Crusher	2	370	0.039	0.015	0.015	28.86	11.10	5.55	126.41	48.62	24.31
Conveyors	3	1500	0.003	0.0011	0.0011	13.50	4.95	1.65	59.13	21.68	7.23
Conveyors	6	1200	0.003	0.0011	0.0011	21.60	7.92	1.32	94.61	34.69	5.78
Conveyors	8	1000	0.003	0.0011	0.0011	24.00	8.80	1.10	105.12	38.54	4.82
Primary Screen Secondary Screen	1	1050	0.025 0.025	0.0087 0.0087	0.0087 0.0087	26.25 28.75	9.14 10.01	9.14	114.98 125.93	40.01 43.82	40.01 43.82
Tertiary Screen	1	1150 1245	0.025	0.0087	0.0087	373.50	89.64	89.64	1635.93	392.62	43.82 392.62
Quaternary Screen	5	1195	0.3	0.072	0.072	1792.50	430.20	86.04	7851.15	1884.28	376.86
Feeder	1	1200	0.003	0.072	0.0011	3.60	1.32	1.32	15.77	5.78	5.78
Feeder	1	150	0.003	0.0011	0.0011	0.45	0.17	0.17	1.97	0.72	0.72
Feeders	2	500	0.003	0.0011	0.0011	3.00	1.10	0.55	6.57	2.41	2.41
1 ccucis				leven's Plar							
Secondary Crusher	1	390	0.0007	0.0007	0.0007	0.27	0.27	0.27	1.20	1.20	1.20
Secondary Screen	1	390	0.025	0.0087	0.0087	9.75	3.39	3.39	42.71	14.86	14.86
Conveyors	10	300	0.003	0.0011	0.0011	9.00	3.30	0.33	39.42	14.45	1.45
Conveyors	4	390	0.003	0.0011	0.0011	4.68	1.72	0.43	20.50	7.52	1.88
Feeders	2	390	0.003	0.0011	0.0011	2.34	0.86	0.43	5.12	1.88	1.88
				Sand Plant					•		
Feeders	2	150	0.003	0.0011	0.0011	0.90	0.33	0.17	1.97	0.72	0.72
Screen	1	300	0.0022	0.00074	0.00074	0.66	0.22	0.22	2.89	0.97	0.97
Conveyors	5	300	0.003	0.0011	0.0011	4.50	1.65	0.33	3.94	1.45	1.45
									The breaker	s are used occ	casionally to

Total Controlled Emissions

	Crushers	Screening	Conveying	Feeders	Total
PM	183.03	18,399.99	851.60	78.31	19,512.94
PM10	83.56	4,500.12	312.25	33.92	4,929.86
PM2.5	56.62	1,635.10	51.75	33.92	1,777.39

Maintenance activity: break oversized rock feeding the PM/PM10/ # of capacity PTE operation PM2.5 EF **Breakers** (ton/hr) (hrs/yr) (tons/yr) (lb/ton) 600 1095 0.69 0.0007 600 1095 0.0007 0.69 600 1095 0.0007 0.69

Emission Factors

AP-42 Ch.11.19.2, Table 11.19.2-2. EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS (Fifth edition, 8/2004)

Primary and Secondary Crushing from AP-42 Ch.11.19.2 background documents (Fifth edition, 1/1995).

Feeders are considered to be a conveyor transfer point.

When no emission factor was available for PM2.5, it was assumed equal to PM10.

Methodology

Emission (tons/yr) = [Capacity (tons/hr) x Emission Factor (lb/ton)] x 8760 hr/yr / 2,000 lb/ton

As a worst case the breakers are calculated to work 3 hours per day using the primary crusher emission factor PTE (tons/yr) = # of breakers * est. capacity (ton/hr) * worst case operation (hrs/yr) * EF (lb/ton)

Appendix A: Emissions Calculations Particlate from Crushing, Screening, and Conveying - Stone Processing Limited Potential Emissions

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)
Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137
Permit Renewal No.: T025-36919-00002

Reviewer: Monica Dick

Limited Throughput (tpy) Limit = 8,000,000

		Сара	acity	Emissi	on Factor	Calculated limit	
Type of unit	Number of emission units	(tons/hour)	(tons/yr)	PM (lb/ton)	PM _{10*} (lb/ton)	PM (tons/yr)	PM _{10*} (tons/yr)
				Plant 1		•	
Primary Crusher	1	1200	10,512,000	0.0002	0.0002	0.80	0.80
Secondary Crusher	1	750	6,570,000	0.0002	0.0002	0.66	0.66
Tertiary Crusher	2	250	2,190,000	0.0012	0.00054	2.63	1.18
Conveyor	1	1500	13,140,000	0.00014	0.000046	0.56	0.18
Conveyors (combined capacity of 2)	1	1500	13,140,000	0.00014	0.000046	0.56	0.18
Conveyors (combined capacity of 2)	1	1500	13,140,000	0.00014	0.000046	0.56	0.18
Conveyors (combined capacity of 5) Conveyors (combined capacity of 2)	1	1000 1000	8,760,000 8,760,000	0.00014 0.00014	0.000046 0.000046	0.56 0.56	0.18 0.18
Conveyors (combined capacity of 2) Conveyors	13	1000	8,760,000	0.00014	0.000046	7.28	2.39
Primary Screen	1	1200	10,512,000	0.0022	0.00074	8.80	2.96
Secondary Screen	1	1250	10,950,000	0.0022	0.00074	8.80	2.96
Tertiary Screen (combined capacity of 2)	1	1200	10,512,000	0.0036	0.0022	14.40	8.80
Tertiary Screen (combined capacity of 4)	1	1200	10,512,000	0.0036	0.0022	14.40	8.80
Tertiary Screen	1	820	7,183,200	0.0036	0.0022	12.93	7.90
Feeder	1	1000	8,760,000	0.00014	0.000046	0.56	0.18
Feeder	1	200	1,752,000	0.00014	0.000046	0.12	0.04
Feeders	2	400	3,504,000	0.00014	0.000046	0.49	0.16
			(Ro	ock Wash Operati	on)		
Multi-screen (combined capacity)	1	1250	10,950,000	0.0022	0.00074	8.80	2.96
Conveyors	4	1250	10,950,000	0.00014	0.000046	2.24	0.74
Conveyor	1	500	4,380,000	0.00014	0.000046	0.31	0.10
Feeder	1	1200	10,512,000	0.00016	0.000016	0.64	0.06
				Plant 1A			
Primary Crusher	1	800	7,008,000	0.0002	0.0002	0.70	0.70
Secondary Crusher	1	500	4,380,000	0.0002	0.0002	0.44	0.44
Tertiary Crusher	1	400	3,504,000	0.0012	0.00054	2.10	0.95
Primary Screen Quaternary-Final Screen	2	800 250	7,008,000 2,190,000	0.0022	0.00074 0.0022	7.71 7.88	2.59 4.82
Conveyors	5	1000	8,760,000	0.0036 0.00014	0.00022	2.80	0.92
Conveyors	5	800	7.008.000	0.00014	0.000046	2.45	0.81
Conveyors	6	500	4,380,000	0.00014	0.000046	1.84	0.60
Feeder	1	700	6,132,000	0.00014	0.000046	0.43	0.14
Feeder	1	750	6,570,000	0.00014	0.000046	0.46	0.15
Feeder	1	400	3,504,000	0.00014	0.000046	0.25	0.08
				Plant 2		•	
Primary Crusher	1	1200	10,512,000	0.0002	0.0002	0.80	0.80
Secondary Crusher	1	900	7,884,000	0.0002	0.0002	0.79	0.79
Tertiary Crusher	1	750	6,570,000	0.0012	0.00054	3.94	1.77
Quaternary Crusher	2	370	3,241,200	0.003	0.0012	9.72	3.89
Conveyors	3	1500	13,140,000	0.00014	0.000046	1.68	0.55
Conveyors	4	1200	10,512,000	0.00014	0.000046	2.24	0.74
Conveyors (combined capacity of 2)	1	1195	10,468,200	0.00014	0.000046	0.56	0.18
Conveyors (combined capacity of 2) Conveyors	1 6	1195 1000	10,468,200 8.760.000	0.00014 0.00014	0.000046 0.000046	0.56 3.36	0.18
Conveyors Primary Screen	1	1000	9,198,000	0.00014	0.000046	8.80	1.10 2.96
Secondary Screen	1	1150	10,074,000	0.0022	0.00074	8.80	2.96
Tertiary Screen	1	1245	10,906,200	0.0022	0.00074	14.40	2.96
Quaternary Screen	1	1195	10,468,200	0.0036	0.00074	14.40	8.80
Quaternary Screen (combined capacity of 4)	1	1195	10,468,200	0.0036	0.0022	14.40	8.80
Feeder	1	1200	10,512,000	0.00014	0.000046	0.56	0.18
Feeder		150	1,314,000	0.00014	0.000046	0.09	0.03
Feeders	2	500	4,380,000	0.00014	0.000046	0.61	0.20
				Eleven's Plant			
Secondary Crusher	1	390	3,416,400	0.0002	0.0002	0.34	0.34
Secondary Screen	1	390	3,416,400	0.0022	0.00074	3.76	1.26
Conveyors	10	300	2,628,000	0.00014	0.000046	1.84	0.60
Conveyors	4	390	3,416,400	0.00014	0.000046	0.96	0.31
Feeders	2	390	3,416,400	0.00014	0.000046	0.48	0.16
				Sand Plant			
Feeders	2	150	1,314,000	0.00014	0.000046	0.09	0.03
Screen	1	300	2,628,000	0.0022	0.00074	2.89	0.97
Conveyors	5	300	2,628,000	0.00014	0.000046	0.18	0.06

Total Controlled Emissions

	Crushers	Screening	Conveying	Feeders	Total
PM	22.92	151.17	31.10	4.78	187.05
PM_{10}^*	12.32	70.51	10.22	1.43	82.15

Emission Factors

AP-42 Ch.11.19.2, Table 11.19.2-2. EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS (Fifth edition, 8/2004) Primary and Secondary Crushing from AP-42 Ch.11.19.2 background documents (Fifth edition, 1/1995).

Feeders are considered to be a conveyor transfer point.

PM10 = PM2.5

Methodology

 $Emission \ (tons/yr) = [Capacity \ (tons/hr) \ x \ Emission \ Factor \ (lb/ton)] \ x \ 8760 \ hr/yr \ / \ 2,000 \ lb/ton$

0.06

0.10

Appendix A: Emission Calculations Reciprocating Internal Combustion Engines - Diesel Fuel

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)
Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Permit Renewal No.: T025-36919-00002 Reviewer: Monica Dick

Output Rating (<=600 HP)

Output Horsepower Rating (hp)	475
Maximum Hours Operated per Year	
Potential Throughput (hp-hr/yr)	4,161,000

		Pollutant								
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO			
Emission Factor in lb/hp-hr	0.0022	0.0022	0.0022	0.0021	0.0310	0.0025	0.0067			
Potential Emission in tons/yr	4.58	4.58	4.58	4.27	64.50	5.23	13.90			

^{*}PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Hazardous Air Pollutants (HAPs)

		Pollutant										
								Total PAH				
	Benzene	Toluene	Xylene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	HAPs***				
Emission Factor in lb/hp-hr****	6.53E-06	2.86E-06	2.00E-06	2.74E-07	8.26E-06	5.37E-06	6.48E-07	1.18E-06				
Potential Emission in tons/yr	1.36E-02	5.96E-03	4.15E-03	5.69E-04	1.72E-02	1.12E-02	1.35E-03	2.45E-03				
					Pote	ntial Emission	of Total HA	Ps (tons/vr)				

^{***}PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Methodology

Su

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]

 $Potential\ Emission\ (tons/yr) = [Potential\ Throughput\ (hp-hr/yr)]\ ^* \\ [Emission\ Factor\ (lb/hp-hr)]\ /\ [2,000\ lb/ton]$

Output Rating (>600 HP)

Two generators including AG-1402 (1400 HP engine) and AG-0901 (676 HP engine)

Output Horsepower Rating (hp)	2076
Maximum Hours Operated per Year	8760
Potential Throughput (hp-hr/yr)	18,185,760
Ifur Content (S) of Fuel (% by weight)	0.500

		Pollutant								
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO			
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03	2.40E-02	7.05E-04	5.50E-03			
				(.00809S)	**see below					
Potential Emission in tons/yr	6.37	3.65	3.65	36.78	218.23	6.41	50.01			

^{*}PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Hazardous Air Pollutants (HAPs)

				Pollutant					
							Total PAH		
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	HAPs***		
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06		
Potential Emission in tons/yr	4.94E-02	1.79E-02	1.23E-02	5.02E-03	1.60E-03	5.02E-04	1.35E-02		
-		Potential Emission of Total HAPs (tons/vr)							

^{***}PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Emergency Generator Output Rating (>600 HP) Underground Fan emergency engine AG-0902 (1089 HP engine)

Output Horsepower Rating (hp)

Maximum Hours Operated per Year

Potential Throughput (hp-hr/yr)

Sulfur Content (S) of Fuel (% by weight)

0 500

Sullui Content (3) or i dei (7)	by weight)	0.500	1								
		Pollutant									
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO				
Emission Factor in lb/hp-hr	7.00E-04	4.01E-04	4.01E-04	4.05E-03	2.40E-02	7.05E-04	5.50E-03				
				(.00809S)	**see below						
Potential Emission in tons/vr	0.19	0.11	0.11	1 10	6.53	0.19	1.50				

^{*}PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

Hazardous Air Pollutants (HAPs)

				Pollutant							
							Total PAH				
	Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein	HAPs***				
Emission Factor in lb/hp-hr****	5.43E-06	1.97E-06	1.35E-06	5.52E-07	1.76E-07	5.52E-08	1.48E-06				
Potential Emission in tons/yr	1.48E-03	5.36E-04	3.68E-04	1.50E-04	4.80E-05	1.50E-05	4.04E-04				
		Potential Emission of Total HAPs (tons/yr)									

^{***}PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Methodology

Emission Factors are from AP 42 (Supplement B 10/96) Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4.

 $Potential\ Throughput\ (hp-hr/yr) = [Output\ Horsepower\ Rating\ (hp)]\ ^*\ [Maximum\ Hours\ Operated\ per\ Year]$

Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]

^{****}Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

^{**}NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

^{****}Emission factors in Ib/hp-hr were calculated using emission factors in Ib/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

^{**}NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

^{****}Emission factors in Ib/hp-hr were calculated using emission factors in Ib/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

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VOC

СО

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)
Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Permit Renewal No.: T025-36919-00002 Reviewer: Monica Dick

Limited hours of operation 7,400

Sulfur Content (S) of Fuel (% by weight) 0.500

Reciprocating Internal Combustion Engines - Diesel Fuel

Output Rating (<600 HP)

Emission Unit ID	Init ID Capacity (HP)		Capacity (HP) limited hp-hr/yr			Diesel Industrial Engines Emission Factors (lb/hp-hr)					
Linission onit ib	Capacity (III-)	, illilited lip-lii/yi	PM	PM-10	PM-2.5	SOx	NOx	VOC	CO		
PLt 2 Gen.	475	3,515,000	2.20E-03	2.20E-03	2.20E-03	2.05E-03	0.03	2.47E-03	6.68E-03		
MY-0109			•	•	•	•	•	•			
	•	lb/hr limit	1.05	1.05	1.05	0.97	14.73	1.17	3.17		
					Limted F	Potential Emission	ns (TPY)				
			PM	PM-10	PM-2.5	SOx	NOx	VOC	CO		
			3.867	3.867	3.867	3.603	54.483	4.341	11.740		

Methodology

Emission Unit ID

Emission Factors are from AP 42, Chapter 3.3, Table 3.3-1, SCC #2-02-001-02 and 2-03-001-01 Limited Emissions (tons/yr) = (limited hp-hr/yr) x Emission Factor (lb/hp-hr)/2,000 lb/ton

Capacity (HP) limited hp-hr/yr

Large Reciprocating Internal Combustion Engines - Diesel Fuel

PM-2.5

Diesel Industrial Engines Emission Factors (lb/hp-hr)

SOx

NOx

Output Rating (>600 HP)

Non-emergency Back up Generator	676	5,002,400	7.000E-04	7.000E-04	7.000E-04	4.000E-03	0.02	7.050E-04	5.500E-03
AG-0901									
	_	lb/hr limit	0.47	0.47	0.47	2.70	16.22	0.48	3.72
					Limited	Potential Emission	ns (TPY)		
			PM	PM-10	PM-2.5	SOx	NOx	VOC	СО
			1.751	1.751	1.751	10.005	60.029	1.763	13.757
Emission Unit ID	Capacity (HP)	limited hp-hr/yr			Diesel Industrial	Engines Emission	Factors (lb/hp-hr)	
Lillission official	Capacity (III)	illinted lip-lii/yi	PM	PM-10	PM-2.5	SOx	NOx	VOC	CO
Eleven's Plant Gen.	1400	10,360,000	7.000E-04	7.000E-04	7.000E-04	4.000E-03	0.02	7.050E-04	5.500E-03
AG-1402									
	2 .	lb/hr limit	0.98	0.98	0.98	5.60	33.60	0.99	7.70
					Limited	Potential Emission	ns (TPY)		
			PM	PM-10	PM-2.5	SOx	NOx	VOC	CO
			3.626	3.626	3.626	20.720	124.320	3.652	28.490
hours of operation	500]							
				•	•		•		

PM-10

hours of operation	500								
Emission Unit ID	ID Capacity (HP) Potential		Diesel Industrial Engines Emission Factors (lb/hp-hr)						
	Cupuony (iii)	hp-hr/yr	PM	PM-10	PM-2.5	SOx	NOx	VOC	СО
Underground Fan (Emg Engine)	1089	544,500	7.000E-04	7.000E-04	7.000E-04	4.000E-03	2.400E-02	7.050E-04	5.500E-03
AG-0902									
	2	lb/hr limit	0.76	0.76	0.76	4.36	26.14	0.77	5.99
					Uncontroll	ed Potential Emis	sions (TPY)		
			PM	PM-10	PM-2.5	SOx	NOx	VOC	CO
			0.191	0.191	0.191	1.089	6.534	0.192	1.497
			PM	PM-10	PM-2.5	SOx	NOx	VOC	СО
Total Li	imited Diesel Gene	erator Emissions:	9.434	9.434	9.434	35.417	245.365	9.948	55.484

Methodology

limited hp-hr/yr = hp * limited hours of operation for regularly operating generators Emission Factors are from AP 42, Chapter 3.4, Table 3.4-1, SCC #2-02-004-01 Limited Emissions (tons/yr) = (limited hp-hr/yr) x Emission Factor (lb/hp-hr)/2,000 lb/ton

Appendix A: Emissions Calculations One (1) 0.35 MMBtu/hr diesel or waste oil-fired heater Worst Case emission for the heater are in bold font below

#2 Fuel Oil

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility) Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Permit Renewal No.: T025-36919-00002 Reviewer: Monica Dick

	Potential	
Heat Input Capacity	Throughput	S = Weight
MMBtu/hr	kgals/year	% Sulfur
0.35	21.0	0.5

		Pollutant							
	PM*	PM10**	direct PM2.5***	SO2	NOx	VOC	CO		
Emission Factor in lb/kgal	2.0	2.38	2.13	71	20.0	0.34	5.0		
				(142.0S)					
Potential Emission in tons/yr	0.02	0.03	0.02	0.78	0.22	0.00	0.05		

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

Hazardous Air Pollutants (HAPs)

		HAPs - Metals						
	Arsenic	Beryllium	Cadmium	Chromium	Lead			
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06			
Potential Emission in tons/vr	6.1E-06	4.6E-06	4.6E-06	4.6E-06	1.4E-05			

	HAPs - Metals (continued)					
	Mercury	Manganese	Nickel	Selenium		
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05		
Potential Emission in tons/yr	4.6E-06	9.2E-06	4.6E-06	2.3E-05		

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Waste Oil - Atomizing burner

	Potential			
Heat Input Capacity	Throughput	S = Weight	A = Weight	L = Weight
MMBtu/hr	kgals/year	% Sulfur	% ash in fuel	% lead in fuel
0.35	21.9	0.5	5	5

	Pollutant							
	PM*	PM10	direct PM2.5**	SO2	NOx	VOC	CO	Pb
Emission Factor in lb/kgal	330.0	285.0	285.00	53.5	16.0	1.00	2.1	250.0
	(66A)	(57A)	(57A)	(107S)				(50L)
Potential Emission in tons/yr	3.61	3.12	3.12	0.59	0.18	0.01	0.02	2.74

Methodology

Assumed a similar heating value to #2 fuel oil of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu Emission Factors are from AP 42, Tables 1.11-1, 1.11-2, and 1.11-3, 10/96

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

	HAPs - Metals							
	Arsenic	Beryllium	Cadmium	Chromium	Pb			
Emission Factor in lb/mmBtu	0.06	0.00	0.01	0.18	250.00			
Potential Emission in tons/yr	0.09	0.00	0.02	0.28	2.74			

		HAPs - Me	etals (continued)	
	Cobalt	Manganese	Nickel	Antimony
Emission Factor in lb/mmBtu	0.01	0.05	0.16	0.00
Potential Emission in tons/yr	0.01	0.08	0.25	0.01

Total HAPs	3.46
Worst HAP	2.74

Methodology

Emission Factors are from AP 42, Tables 1.11-4, 10/96

Highest nine (9) HAP levels are included.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

^{*}PM emission factor is filterable PM only.

^{**}PM10 emission factor is filterable PM10 of 1.08 lb/kgal + condensable PM emission factor of 1.3 lb/kgal.

^{***}Direct PM2.5 emission factor is filterable PM2.5 of 0.83 lb/kgal + condensable PM emission factor of 1.3 lb/kgal. Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

^{*}PM emission factor is filterable PM only.

^{**}Assume PM2.5 is equal to PM10 emission factor.

Appendix A: Emissions Calculations #2 Fuel Oil

Two (2) 0.35 MMBtu/hr diesel-fired heaters

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Permit Renewal No.: T025-36919-00002

Reviewer: Monica Dick

	Potential	
Heat Input Capacity	Throughput	S = Weight
MMBtu/hr	kgals/year	% Sulfur
0.71	44.4	0.5

	Pollutant								
	PM*	PM*							
Emission Factor in lb/kgal	2.0	2.38	2.13	71	20.0	0.34	5.0		
				(142.0S)					
Potential Emission in tons/yr	0.04	0.05	0.05	1.58	0.44	0.01	0.11		

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file) *PM emission factor is filterable PM only.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

	HAPs - Metals							
	Arsenic Beryllium Cadmium Chromium Lea							
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06			
Potential Emission in tons/yr	1.2E-05	9.3E-06	9.3E-06	9.3E-06	2.8E-05			

		HAPs - Me	Total HAPs	0.00		
	Mercury	Manganese	Nickel	Selenium	Worst HAP	0.00
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05		
Potential Emission in tons/yr	9.3E-06	1.9E-05				

Methodology

No data was available in AP-42 for organic HAPs.

 $Potential\ Emissions\ (tons/year) = Throughput\ (mmBtu/hr)*Emission\ Factor\ (lb/mmBtu)*8,760\ hrs/yr\ /\ 2,000\ lb/ton$

^{**}PM10 emission factor is filterable PM10 of 1.08 lb/kgal + condensable PM emission factor of 1.3 lb/kgal.

^{***}Direct PM2.5 emission factor is filterable PM2.5 of 0.83 lb/kgal + condensable PM emission factor of 1.3 lb/kgal.

Appendix A: Emissions Calculations LP Combustion

Three (3) 0.14 MMBtu/hr heaters

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137
Permit Renewal No.: T025-36919-00002

Reviewer: Monica Dick

Heat Input	HHV	Potential	
Capacity	mmBtu	Throughput	
MMBtu/hr	mmscf	MMCF/yr	S = gr/100 cuft
0.4	1020	3.6	0.18

		Pollutant								
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO			
Emission Factor in lb/MMCF	0.2	0.7	0.7	0.02	13	1.0	7.5			
					**see below					
Potential Emission in tons/yr	0.00	0.00	0.00	0.00	0.02	0.00	0.01			

^{*}PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

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

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Hazardous Air Pollutants (HAPs)

		HAPs - Organics							
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics			
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03				
Potential Emission in tons/yr	3.8E-06	2.2E-06	1.4E-04	3.25E-03	6.1E-06	0.00			

		HAPs - Metals							
	Lead	Lead Cadmium Chromium Manganese Nickel Total - Met							
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	2.1E-03						
Potential Emission in tons/yr	9.0E-07	2.0E-06	2.5E-06	6.9E-07	3.8E-06	9.9E-06			
Methodology is the same as abo	Total HAPs	0.00							
The five highest organic and metal HAPs emission factors are provided above.						0.00			

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

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

Appendix A: Emissions Calculations Welding and Thermal Cutting

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Permit Renewal No.: T025-36919-00002
Reviewer: Monica Dick

PROCESS	Number of	Max. electrode			EMISSION					SSIONS		HAPS
	Stations	consumption per			(lb pollutant/	b electrode)			((lbs/hr)		(lbs/hr)
WELDING		station (lbs/hr)		PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Metal Inert Gas (MIG)(carbon steel)	8	5		0.0055	0.0005			0.220	0.020	0.000	0	0.020
words more cas (wire)(sarson stosi)	Ü	Ü		0.0000	0.0000			0.220	0.020	0.000	Ŭ	0.020
	N				EMICOIONI	A 07000			FMI	0010110		
	Number of	Max. Metal	Max. Metal		EMISSION I					SSIONS		HAPS
	Stations	Thickness	Cutting Rate	(lb poll	utant/1,000 in	ches cut, 1" th	ick)**		((lbs/hr)		(lbs/hr)
FLAME CUTTING		Cut (in.)	(in./minute)	PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
		_										
Oxyacetylene	8	2	12	0.1622	0.0005	0.0001	0.0003	1.869	0.006	0.001	0.003	0.010
EMISSION TOTALS	•				•		•	<u> </u>		•		
Potential Emissions lbs/hr								2.09	0.03	0.00	0.00	0.03
Potential Emissions lbs/day								50.13	0.62	0.03	0.08	0.73
Potential Emissions tons/year								9.15	0.11	0.01	0.02	0.13

Methodology:

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

15 gallon Parts Washer Solvent Naphtha

lbs VOC/gal	gallons/year	VOC ton/yr
6.58	80	0.26

The parts washer uses medium aliphatic solvent naphtha (petroleum), which is 100% VOC and density of 6.58 lb/gal.

^{**}Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Appendix A: Emissions Summary Gasoline and Petroleum Fuel Transfer and Dispensing Operation Volatile Organic Compounds and Hazardous Air Pollutants (HAPs)

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137 Permit Renewal No.: T025-36919-00002

Permit Renewal No.: T025-36919-00002 Reviewer: Monica Dick

To calculate evaporative emissions from the petroleum fuel dispensing fuel transfer and dispensing operation emission factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids were used. The total potential emission of VOC is as follows:

Petroleum Fuel Throughput = 2,748.00 kgal/yr

Petroleum Fuel							
	Emission						
	Factor						
	(lb/kgal of	PTE of VOC					
Emission Source	throughput)*	(tons/yr)					
Filling storage tank (splash filling)	0.03	0.04					
Tank breathing and emptying	NA	NA					
Vehicle refueling (displaced losses -							
uncontrolled)	NA	NA					
Spillage	NA	NA					
	Total	0.04					

NA = VOC loss is negligible.

Methodology

The petroleum fuel throughput is the worst case assumption of 229 kgals per month based on the facility description. *Emission Factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids (dated 6/08), Table 5.2-5 Petroleum Fuel Throughput (kgal/yr) = [Petroleum Fuel Throughput (gallons/day)] * [365 days/yr] * [kgal/1000 gal] PTE of VOC (tons/yr) = [Petroleum Fuel Throughput (kgal/yr)] * [Emission Factor (lb/kgal)] * [ton/2000 lb] HAP emission for petroleum fuel are negligible.

1028.56 tons/yr

Appendix A: Emission Calculations Stone Quarry and Processing - Transport and Loading

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)
Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137
Permit Renewal No.: 7025-36919-00002

Reviewer: Monica Dick

PM emissions before controls unpaved roads

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (12/2003).

Plant 1	total trip/hr x	25	Plant 1	miles/round trip x	0.5	Plant 1	109,500	miles per year
Plant 1a	total trip/hr x	16	Plant 1a	miles/round trip x	0.5	Plant 1a	70,080	miles per year
Plant 2	total trip/hr x	24.9	Plant 2	miles/round trip x	0.92	Plant 2	200,674	miles per year
Eleven's Plant	total trip/hr x	8	Eleven's Plant	miles/round trip x	0.92	Eleven's Plant	62,862	miles per year
						Total:	443,116	miles per year
		hr/	/yr =	8,760				
PI	M Emissions	Ef = k*[(s/12)^0.7]*[(W/3)^b]					
		=	16.01 lb/i	mile				
		where k =	4.9 (pa	article size multiplier for PM)		(k	=1.5 for PM-1	10)
		S =	9.15 me	ean % silt content of haul roads	in combination with pla	ant roads = (8.3% + 109	%) / 2	•
		b =	0.45 Co	nstant for PM-10 and PM-30 or	TSP	,	•	
		W =	63.53 tor	ns average vehicle weight				
		E =	16.01 lb/i	mi x	443,116 <u>n</u>	ni/yr =	3547.2	1 tons/yr
				2,000	lb/ton			
Ta	aking natural mitigation	due to precipitation into	consideration:					
	_	Eext = E	* [(365-p)/365] =				2332.4	1 tons/yr
		where p =	125 da	ys of rain greater than or equal	to 0.01 inches (see Fig	g. 13.2.2-1)		
PI	M-10 Emissions	Ef = k*	(s/12)^0.9]*[(W/3)^b]					
		=	4.64 lb/i	mile				
		where k =		article size multiplier for PM-10)			=4.9 for PM-3	30 or TSP)
		s =	9.15 me	an % silt content of haul roads	in combination with pla	ant roads = (8.3% + 109	%) / 2	
		b =	0.45 Co	nstant for PM-10 and PM-30 or	TSP			
		W =	63.53 tor	s average vehicle weight				

Taking natural mitigation due to precipitation into consideration:

Eext = E * [(365-p)/365] = 676.31 tons/yr

443,116 mi/yr =

where p =

125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

2,000 lb/ton

Controlled Transport

Pollutant	Potential Emissions	Control Efficiency	After Control PTE
PM	2332.41	50%	1166.21
PM10*	676.31	50%	338.16

PM10 = PM2.5

The following calculations determine the amount of emissions created by truck loading and unloading of aggregate, based on 8760 hours of use and AP-42, Ch 13.2.4 (Fifth edition, 1/95).

Loading & Unloading	Plant 1	1-TU-1 Capacity	1200	(tons/hr)
	Plant 1a	1A-TU-1 Capacity	1200	(tons/hr)
	Plant 2	2-TL-1 and 2-TL-2 Capacity	2400	(tons/hr)
	Eleven's Plant	Capacity	390	(tons/hr)
	PM. PM1	0. PM2.5 Potential Emissions	36.75	(tons/vr)

4.64 lb/mi x

 $Ef = k^*(0.0032)^* (U/5)^1.3/(M/2)^1.4$ 0.0016 lb/ton

0.74 (particle size multiplier) U = 10 mile/hr mean wind speed 5 % material moisture content M =

Methodology

Capacity (ton/hr) x EF (lb/ton) x 2000 (lb/ton) x 8760 (hr/yr).

Appendix A: Emission Calculations Stone Quarry and Processing - Storage

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Permit Renewal No.: T025-36919-00002
Reviewer: Monica Dick

Fugitive Emissions from crushed limestone Storage Piles - Plants 1, 1A 2, and Elevens

Storage emissions, which result from wind erosion, are determined by the following calculations:

Storage pile emissions, which result from wind erosion, are determined by the following calculations:

where: s = 1.6 % silt content of material

p = 125 days of rain greater than or equal to 0.01 inches f = 15 % of wind greater than or equal to 12 mph

Storage capacity (SC) of site (tons) = (# acres)*(43560 sqft/acre)*(25 ft high)*(1/40 ton/cuft)

Storage capacity (SC) of site (tons) = 1,742,400

Potential PM Emissions (tpy) = Ef *SC*(40 cuft/ton)*365 day/yr /(2000 lb/ton * 43560 sqft/acre * 25 ft)

21.63 tpy

21.63 tpy

Potential PM Emissions (tpy) = Potential PM10/PM2.5 Emissions (tpy) =

Sand Plant

Storage pile emissions, which result from wind erosion, are determined by the following calculations:

Ef = 1.7 (s/1.5) * (365-p) / 235 * (f/15) = 1.85 lb/ac/day

where: s = 1.6 % silt content of material

 $\begin{array}{lll} p = & 125 & \text{days of rain greater than or equal to 0.01 inches} \\ f = & 15 & \% \text{ of wind greater than or equal to 12 mph} \end{array}$

Storage capacity (SC) of site (tons) = $(\# acres)^*(43560 \text{ sqft/acre})^*(25 \text{ ft high})^*(1/40 \text{ ton/cuft})$

Storage capacity (SC) of site (tons) = 54,450

Potential PM Emissions (tpy) = Ef *SC*(40 cuft/ton)*365 day/yr /(2000 lb/ton * 43560 sqft/acre * 25 ft)

Potential PM Emissions (tpy) = 0.676 tpy Potential PM10/PM2.5 Emissions (tpy) = 0.676 tpy

Total fugitive PM emissions from Storage:

Uncontrolled PTE Controlled PTE

Storage 22.31 tons/yr x 10% emitted after controls = 2.23 tons/yr

Total fugitive PM-10 emissions from Storage:

Uncontrolled PTE Controlled PTE

Storage 22.31 tons/yr x 10% emitted after controls = 2.23 tons/yr

Stone Processing - 326 IAC 6-3-2 Limits

Company Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Address City IN Zip: 19925 S. Alton Fredonia Road, Leavenworth, Indiana 47137

Permit Renewal No.: T025-36919-00002
Reviewer: Monica Dick

emission units	process weight rate of each	emission limit for each emission unit (lb/hr)			
emission units	emission unit (ton/hr)				
	Plant 1				
crusher	1,200	79.97			
each crusher	250	60.96			
each conveyor	1,500	82.95			
each conveyor	1,000	77.59			
each screen	1,200	79.97			
each screen	1,250	80.51			
each screen	820	75.05			
each screen	770	74.26			
each feeder	1,000	77.59			
each feeder	200	58.51			
each feeder	400	66.31			
	Plant 1 Wash Loadout Plant				
Multideck screen (3 decks)	each deck 1,250	each deck 80.51			
each conveyor	1,250	80.51			
conveyor	500	68.96			
001110701	Plant 1A	00.00			
crusher	800	74.74			
crusher	400	66.31			
screen	800	74.74			
each screen	250	60.96			
each conveyor	1,000	77.59			
each conveyor	800	74.74			
each conveyor	500	68.96			
feeder	700	73.06			
feeder	750	73.93			
feeder	400	66.31			
recuer	Plant 2	00.01			
crusher	1,200	79.97			
crusher	900	76.23			
crusher	750	73.93			
each crusher	370	65.41			
each conveyor	1,500	82.95			
each conveyor	1,200	79.97			
each conveyor	1,000	77.59			
each screen	1,000	78.22			
	1,030	80.46			
screen each screen	1,195	79.91			
	1,200	79.97			
feeder	500				
each feeder	Eleven's Plant	68.96			
oorean		66.02			
screen	390	66.02			
each conveyor	300	63.00			
each feeder	390	66.02			
	Sand Plant	1 00.00			
screen	300	63.00			
each conveyor	300	63.00			



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Michael R. Pence

Carol S. Comer

Notice of Public Comment

August 25, 2016 Mulzer Crushed Stone, Inc. (Cape Sandy Facility) 025-36919-00002

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.

Enclosure PN AAA Cover.dot 2/17/2016





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Michael R. Pence Governor

Carol S. Comer

AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD DRAFT INDIANA AIR PERMIT

August 25, 2016

A 30-day public comment period has been initiated for:

Permit Number: 025-36919-00002

Applicant Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Location: Leavenworth, Crawford County, Indiana

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at: http://www.in.gov/ai/appfiles/idem-caats/

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management Office of Air Quality, Permits Branch 100 North Senate Avenue Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

Affected States Notification.dot 2/17/2016







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Michael R. Pence *Governor*

Carol S. Comer

August 25, 2016

Mr. Brian Peters Mulzer Crushed Stone, Inc. (Cape Sandy Facility) 534 Mozart Street Tell City, IN 46586

Re: Public Notice

Mulzer Crushed Stone, Inc. (Cape Sandy Facility) Permit Level: Part 70 Operating Permit Renewal

Permit Number: 0258-36919-00002

Dear Mr. Peters:

Enclosed is a copy of your draft Part 70 Operating Permit Renewal, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Clarion News in Corydon, Indiana publish the abbreviated version of the public notice no later than August 31, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Breedon Memorial Library, 529 West Old State Road 62 in Leavenworth, IN 47137. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Monica Dick, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 4-1243 or dial (317) 234-1243.

Sincerely,

Greg Hotopp

Greg Hotopp Permits Branch Office of Air Quality

Enclosures PN Applicant Cover letter 2/17/2016





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Michael R. Pence Governor Carol S. Comer

August 25, 2016

To: Breedon Memorial Library

From: Matthew Stuckey, Branch Chief

Permits Branch
Office of Air Quality

Subject: Important Information to Display Regarding a Public Notice for an Air

Permit

Applicant Name: Mulzer Crushed Stone, Inc. (Cape Sandy Facility)

Permit Number: 025-36919-00002

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. Please make this information readily available until you receive a copy of the final package.

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures PN Library.dot 2/16/2016







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Michael R. Pence Governor

Carol S. Comer

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

August 25, 2016

Clarian News 301 N. Capital Avenue Corydon, IN 47112

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Mulzer Crushed Stone, Inc. (Cape Sandy Facility), Crawford County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than August 31, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Greg Hotopp at 800-451-6027 and ask for extension 4-3493 or dial 317-234-3493.

Sincerely,

Greg Hotopp

Greg Hotopp Permit Branch Office of Air Quality

Permit Level: Part 70 Operating Permit Renewal

Permit Number: 025-36919-00002

Enclosure

PN Newspaper.dot 2/17/2016





Mail Code 61-53

IDEM Staff	GHOTOPP 8/25/2016			
	Mulzer Crushed Stone Inc (Cape Sandy Facility) 025-36919-00002 DRAFT			AFFIX STAMP
Name and		Indiana Department of Environmental	Type of Mail:	HERE IF
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											Remarks
1		Brian Peters Mulzer Crushed Stone Inc (Cape Sandy Facility) 534 Mozart St Tell City	IN 46586 (So	urce CAATS)	1		•	•	1		
2		Kenneth Mulzer Jr President Mulzer Crushed Stone Inc (Cape Sandy Facility) 534 Mozart St Tell City IN 47586 (RO CAATS)									
3		Crawford County Commissioners 316 South Court Street English IN 47118 (Local Official)									
4		Crawford County Health Department 306 Oak Hill Circle, P.O. Box 246 English IN 47118-0246 (Health Department)									
5		Leavenworth Town Council P.O. Box 7, 636 West Plaza Drive Leavenworth IN 47137 (Local Official)									
6		Breeden Memorial Library 529 Old State Road 62 Leavenworth IN 47137 (Library)									
7		Mark Woods 1300 N. Otts Ln. Milltown IN 47145 (Affected Party)									
8		Christopher Zirkelbach Environmental & Safety Solutions, Inc. 123 NW 4th Street, courthouse Building Ste 703 Evansville IN 47708 (Consultant)									
9		Art & Gina Hill 3591 N St Rd 66 Milltown IN 47145 (Affected Party)									
10		John Blair 800 Adams Ave Evansville IN 47713 (Affected Party)									
11											
12											
13											
14											
15											

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Listed by Sender	Received at Post Office	Receiving employee)	maximum indemnity payable for the reconstruction of nonnegotiable documents under Express
			Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50,000 per
			occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500.
4.0			The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal
11()			insurance. See <i>Domestic Mail Manual</i> R900, S913, and S921 for limitations of coverage on
10			inured and COD mail. See <i>International Mail Manual</i> for limitations o coverage on international
			mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.