NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding the Renewal of a Part 70 Operating Permit for Steel Dynamics Heartland, LLC in Vigo County

Part 70 Operating Permit Renewal No.: T167-40187-00120

The Indiana Department of Environmental Management (IDEM) has received an application from Steel Dynamics Heartland, LLC located at 455 West Industrial Drive, Terre Haute, IN 47802 for a renewal of its Part 70 Operating Permit issued on April 10, 2014. If approved by IDEM’s Office of Air Quality (OAQ), this proposed renewal would allow Steel Dynamics Heartland, LLC to continue to operate its existing source.

This draft Part 70 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:

Vigo County Public Library
1 Library Square
Terre Haute, IN 47807

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

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

How can you participate in this process?

The date that this notice is posted on IDEM's website (https://www.in.gov/idem/5474.htm) 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 T167-40187-00120 in all correspondence.

Comments should be sent to:

Jorge Cirnigliaro
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for Jorge Cirnigliaro or (317) 234-5174
Or dial directly: (317) 234-5174
Fax: (317) 232-6749 attn: Jorge Cirnigliaro
E-mail: JCirnigi@idem.in.gov

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

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

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM’s response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM’s decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, 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 Jorge Cirnigliaro of my staff at the above address.

Brian Williams, Section Chief
Permits Branch
Office of Air Quality
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

DRAFT

Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Steel Dynamics Heartland, LLC
455 West Industrial Drive
Terre Haute, Indiana 47802

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

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

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

<table>
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<tr>
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<tr>
<td>Master Agency Interest ID: 12533</td>
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<tr>
<th>Issued by:</th>
<th>Issuance Date:</th>
<th>Expiration Date:</th>
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<tbody>
<tr>
<td>Brian Willams, Section Chief</td>
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<td>Permits Branch</td>
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<td>Office of Air Quality</td>
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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.4 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 Stationary Steel Processing Plant.

<table>
<thead>
<tr>
<th>Source Address:</th>
<th>455 West Industrial Drive, Terre Haute, Indiana 47802</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Source Phone Number:</td>
<td>(812) 298-3496</td>
</tr>
<tr>
<td>SIC Code:</td>
<td>3316 (Cold-Rolled Steel Sheet, Strip, and Bars)</td>
</tr>
<tr>
<td>County Location:</td>
<td>Vigo Outside Fayette and Harrison Townships</td>
</tr>
<tr>
<td>Source Location Status:</td>
<td>Attainment for all criteria pollutants</td>
</tr>
<tr>
<td>Source Status:</td>
<td>Part 70 Operating Permit Program</td>
</tr>
<tr>
<td>Minor Source, under PSD and Emission Offset Rules</td>
<td></td>
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<tr>
<td>Minor Source, Section 112 of the Clean Air Act</td>
<td></td>
</tr>
<tr>
<td>Steel processing plant is not 1 of 28 source categories; batch annealing system, reversing two stand cold mill, and temper mill are considered 1 of 28 listed source categories, nested within the steel processing plant.</td>
<td></td>
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</table>

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:

(a) One (1) Galvanizing Line, identified as GAL-1, constructed in August 1999, with a nominal capacity of 140,000 pounds of steel per hour consisting of the following equipment (Note: a portion of this line may be used as a continuous annealing line instead of galvanizing only):

(1) One (1) Galvanizing Line Direct Fire Zone Furnace, identified as GL-02, with a nominal capacity of 45.3 million BTU per hour, fired on natural gas, using low NOx burners for control, and exhausting to stack 002.

(2) One (1) Galvanizing Line Radiant Heat Tube Furnace, identified as GL-03, with a nominal capacity of 13.2 million BTU per hour, fired on natural gas, using low NOx burners for control, and exhausting to stack 003.

(3) One (1) Galvanizing Line Chromate Spray Dryer Furnace, identified as GL-04, with a nominal capacity of 2.0 million BTU per hour, fired on natural gas, using low NOx burners for control, and exhausting to the building interior.

(4) One (1) Galvanizing Line Spray Cleaning section with a brush scrubber and strip rinse, identified as GL-05, utilizing hot alkali solution, using mist elimination for control, and exhausting to stack 006.

(5) One (1) Galvanizing Line Zinc Induction Melting section, identified as GL-06, with a nominal zinc melt capacity of 10,200 pounds per hour, using no control, and exhausting to the building interior.
(6) One (1) Galvanizing Line Temper Mill, identified as GL-07, utilizing a detergent as the rolling fluid, using no control, and exhausting to the building interior.

(7) One (1) Galvanizing Line Electric Induction Dryer, identified as GL-09, with a nominal capacity of 2.0 million BTU per hour.

(8) One (1) Galvanizing Line Chromate Roll Applicator, identified as GL-10, utilizing a nominal of 0.4 pounds per hour of chromic acid.

(b) Three (3) Package Boilers, identified as PB-1, PB-2, and PB-3, constructed in July 1999, with a nominal capacity of 32.7 million BTU per hour each, fired on natural gas, using low NOx burners for control, and exhausting to stacks 005A, 005B, and 005C respectively.

Under NSPS Subpart Dc, Package Boilers PB-1, PB-2, and PB-3 are considered affected sources.

(c) One (1) Pickle Line, identified as PL-1, constructed in July 1999, with a nominal capacity of 300 tons of steel per hour, utilizing Hydrochloric Acid as the pickling liquor, consisting of the following equipment:

(1) Four (4) pickle tanks, identified as pickle tank #1 through pickle tank #4, with a nominal capacity of 5,200 gallons each, using a packed tower wet scrubber (including a mist eliminator pad) identified as ECU-1 for HCl emission control, and exhausting to stack 001.

(2) One (1) five-chamber cascading re-circulating rinse tank, identified as rinse tank #1, with a nominal capacity of 3,800 gallons, using scrubber ECU-1 for control, and exhausting to stack 001.

(3) One (1) Strip Dryer, identified as PL-dryer, with a nominal capacity of 5,900 scfm of air heated in the package boilers, and exhausting inside the building.

(4) Two (2) fresh acid storage tanks, identified as Tank #1 and Tank #2, with a nominal capacity of 24,000 gallons each, using scrubber ECU-1 for control, and exhausting to stack 001.

(5) Four (4) pickle liquor re-circulation tanks, identified as Tank #3 through Tank #6, with a nominal capacity of 12,000 gallons each, using scrubber ECU-1 for control, and exhausting to stack 001.

(6) One (1) spent rinse water storage tank, identified as Tank #9, with a nominal capacity of 12,000 gallons, using scrubber ECU-1 for control, and exhausting to stack 001.

(7) Two (2) spent pickle liquor storage tanks, identified as Tank #7 and #8, with a nominal capacity of 24,000 gallons each, using scrubber ECU-1 for control, and exhausting to stack 001.

(8) One (1) welding operation and four (4) shearing operations to conduct continuous pickling.

(9) One (1) Pickle Line Scale Breaker, controlled by a baghouse, and exhausting to stack 007.

(d) One (1) Batch Annealing system, constructed in 1999, consisting of twelve (12) bases and six (6) batch annealing furnaces. The furnaces are identified as BA-01 through BA-
06, with a nominal capacity of 6.0 million BTU per hour each, fired on natural gas but also consuming evaporated oil from the coils being annealed, using low NOx burners for control, and exhausting to the building interior.

(e) One (1) Two Stand Reversing Cold Mill, identified as RCM-1, constructed in January 2000, with a nominal capacity of 400,000 pounds of steel per hour, using a baghouse for control, and exhausting to stack 004.

(f) One (1) Temper Mill, identified as TM-1, constructed in July 1999, with a nominal capacity of 158,000 pounds of steel per hour, using no control and exhausting to the building interior.

A.3 Specifically Regulated Insignificant Activities

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

(a) Fugitive emissions from paved/unpaved roads and lots.

(b) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower, including the following: two (2) emergency generators each nominally rated at 1447 BHP (69.7 gallons per hour), installed in 1999.

Under NESHAP Subpart ZZZZ, the two emergency generators are considered existing affected sources.

(c) Three (3) natural gas heaters, installed in 2010, with a nominal rating of 150,000 BTU/hr each.

(d) One (1) pot rig heater on galvanizing line, installed in 1999, with a nominal capacity of 2.5 MMBTU/hr.

(e) Three (3) cleaning section burners on the galvanizing line, with a nominal capacity of 8 MMBtu/hr, each. Two of the burners were installed in 1999. The third burner was installed in 2014. All are fired with natural gas.

(f) Three (3) gasoline generator/welders, all installed in 1999. The generator/welders are nominally rated at 22hp (55,977 BTU/hr), 20hp (50,888 BTU/hr), and 12.75hp (32,441 BTU/hr). The engines associated with the welders are non-road engines.

(g) The following equipment related to manufacturing activities: brazing equipment, cutting torches, soldering equipment, and welding equipment including:

(1) Six (6) Oxy-acetylene torch sets with a nominal cutting rate of approximately 3 ft/min cutting metal with a nominal thickness of approximately 1 ½ inches.

(2) Seven (7) plasma cutters with a nominal cutting rate of approximately 2 ft/min cutting metal with a nominal thickness of approximately 1 inch.

(3) Six (6) plug-in MIG welders with a nominal electrode consumption of 3.0 lbs/hr each.

(4) One (1) plug-in TIG welder with a nominal electrode consumption of 1 lb/hr.

(5) Two (2) plug-in stick welders with a nominal electrode consumption of 1 lbs/hr.
(h) Noncontact cooling tower systems with the following: Natural draft cooling towers not regulated under a NESHAP.

(i) Seven (7) space heating units, with no identification, constructed in August 1999, with a nominal capacity of 6.6 million BTU per hour each, fired on natural gas.

(j) Two (2) cold cleaner degreasers with remote solvent reservoirs.

A.4 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) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

Under NESHAP Subpart CCCCCC, the gasoline fuel transfer dispensing operation is considered an affected source.

(b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(c) The following VOC and HAP storage containers:

(1) Ink used to mark products using a stenciling system.

(2) Cleaner for the stenciling systems.

(3) Denatured alcohol used for cleaning certain parts of machinery.

(d) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(e) Machining where an aqueous cutting coolant continuously floods the machining interface. The permittee has two grinders (that work similar to lathes) in the roll shop that grind work rolls. Work rolls are used in the machinery (mainly in the reversing cold mill and temper mill) to process the steel coils.

(f) Rolling oil recovery systems.

(g) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(h) Quenching operations used with heat treating processes.

(i) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(j) Heat exchanger cleaning and repair.

(k) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
(l) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling
tower.

(m) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(n) Other activities or categories (potential emissions of: less than 25 pounds per day of CO
or NOx; less than 5 pounds per hour or 25 pounds per day of SO2 or PM10; less than 3
pounds per hour or 15 pounds per day of VOC; less than 3.29 pounds per day or 0.6 tons
per year for lead or lead compounds):

(1) Trimming operations. No HAPS are emitted; steel is trimmed of the edges and
heads/tails of coils using trimming knives and shears.

(2) Waste water treatment - no HAPS are emitted.

(3) One (1) electrostatic oiler on galvanizing line with a nominal capacity of 250
mg/M² treating steel with a gauge thickness of 0.010" to 0.070".

(4) One (1) electrostatic oiler shear on slitter line with a nominal capacity of 250
mg/M² treating steel with a gauge thickness of 0.010" to 0.070". The steel
throughput for the slitter is approximately 6000 tons/month.

(5) One (1) electrostatic oiler on temper mill with a nominal capacity of 500 mg/M²
treating steel with a gauge thickness of 0.010" to 0.070".

(6) One (1) electrostatic oiler on pickle line with a nominal capacity of 350 mg/M²
treating steel with a gauge thickness of 0.050" to 0.250", using no control and
exhausting to the building interior.

(o) Any operation using aqueous solutions containing less than 1% by weight of VOCs
excluding HAP.

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).
SECTION B  GENERAL CONDITIONS

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

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

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

(a) This permit, T167-40187-00120, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

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

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

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

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

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

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

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

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

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

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

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

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

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.
B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

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

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

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

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

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

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

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

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

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

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as otherwise provided in 326 IAC 2-7-16.

(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 within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered:

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

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

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

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

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

   (A) A description of the emergency;
(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) All terms and conditions of permits established prior to T167-40187-00120 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

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

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

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

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

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).
B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination

(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. \[326 \text{IAC 2-7-5(6)(C)}\] 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. \[326 \text{IAC 2-7-9(a)(3)}\]

(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. \[326 \text{IAC 2-7-9(b)}\]

(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. \[326 \text{IAC 2-7-9(c)}\]

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

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

Request for renewal shall be submitted to:

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

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source’s failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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

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

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

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

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

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

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

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

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

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:

1. The changes are not modifications under any provision of Title I of the Clean Air Act;

2. Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

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

and

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

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

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

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

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

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

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

(3) Any change in emissions; and

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

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

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.

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

B.20 Source Modification Requirement [326 IAC 2-7-10.5]
A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]
Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

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

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

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

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

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

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks a permit revision reflecting a change to ownership or operational control of the source and no other change in the permit is necessary.

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

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

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

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

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

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

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

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

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

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

C.1 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.2 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.3 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.4 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.5 Stack Height  [326 IAC 1-7]

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

C.6 Asbestos Abatement Projects  [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140 when conducting any asbestos abatement project covered by those rules
Testing Requirements  [326 IAC 2-7-6(1)]

C.7 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 no 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.8 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.9 Compliance Monitoring  [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)][40 CFR 64][326 IAC 3-8]

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

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

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

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

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

C.10 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.11 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.12 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.13 Response to Excursions or Exceedances [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5]
[326 IAC 2-7-6]

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

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;
(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

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

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

(II) CAM Response to excursions or exceedances.

(a) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
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(2) Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

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

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

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

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

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

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

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

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

(h) CAM recordkeeping requirements.

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

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

C.14 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.15 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:

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.16 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.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [40 CFR 64][326 IAC 3-8]

(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.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

1. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

2. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime
associated with zero and span or other daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

(b) The address for report submittal is:

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

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

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

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

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.
SECTION D.1  EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Galvanizing Line

(a) One (1) Galvanizing Line, identified as GAL-1, constructed in August 1999, with a nominal capacity of 140,000 pounds of steel per hour consisting of the following equipment (Note: a portion of this line may be used as a continuous annealing line instead of galvanizing only):

1. One (1) Galvanizing Line Direct Fire Zone Furnace, identified as GL-02, with a nominal capacity of 45.3 million BTU per hour, fired on natural gas, using low NOx burners for control, and exhausting to stack 002.

2. One (1) Galvanizing Line Radiant Heat Tube Furnace, identified as GL-03, with a nominal capacity of 13.2 million BTU per hour, fired on natural gas, using low NOx burners for control, and exhausting to stack 003.

3. One (1) Galvanizing Line Chromate Spray Dryer Furnace, identified as GL-04, with a nominal capacity of 2.0 million BTU per hour, fired on natural gas, using low NOx burners for control, and exhausting to the building interior.

4. One (1) Galvanizing Line Spray Cleaning section with a brush scrubber and strip rinse, identified as GL-05, utilizing hot alkali solution, using mist elimination for control, and exhausting to stack 006.

5. One (1) Galvanizing Line Zinc Induction Melting section, identified as GL-06, with a nominal zinc melt capacity of 10,200 pounds per hour, using no control, and exhausting to the building interior.

6. One (1) Galvanizing Line Temper Mill, identified as GL-07, utilizing a detergent as the rolling fluid, using no control, and exhausting to the building interior.

7. One (1) Galvanizing Line Electric Induction Dryer, identified as GL-09, with a nominal capacity of 2.0 million BTU per hour.

8. One (1) Galvanizing Line Chromate Roll Applicator, identified as GL-10, utilizing a nominal rate of 0.4 pounds per hour of chromic acid.

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

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

(a) The PM emissions from the Galvanizing Line Spray Cleaning section identified as GL-05, shall not exceed 2.19 pounds per hour.

(b) The PM$_{10}$ emissions from the Galvanizing Line Spray Cleaning section identified as GL-05, shall not exceed 2.19 pounds per hour.

(c) The PM$_{2.5}$ emissions from the Galvanizing Line Spray Cleaning section identified as GL-05, shall not exceed 2.19 pounds per hour.

Compliance with these limits in conjunction with the total potential to emit of PM, PM$_{10}$, and PM$_{2.5}$ from the rest of the source, shall ensure that the source-wide PM, PM$_{10}$, and PM$_{2.5}$ emissions are less than 250 tons per twelve (12) consecutive month period, each rendering the requirements of 326 IAC 2-2 (PSD) not applicable.

D.1.2 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a), each unit in the Galvanizing Line shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot (gr/dscf) of particulate matter.

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

A Preventive Maintenance Plan is required for each facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee’s obligation with regard to the preventive maintenance plan required by this condition.

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

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

In order to demonstrate compliance with Condition D.1.1 and D.1.2, the Permittee shall perform PM, PM$_{10}$, and PM$_{2.5}$ testing on the Galvanizing Line Spray Cleaner system outlet (GL-05) utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition. PM$_{10}$ and PM$_{2.5}$ include filterable and condensable PM.

D.1.5 Particulate Matter

In order to comply with Conditions D.1.1 and D.1.2, the mist eliminator for PM, PM$_{10}$, and PM$_{2.5}$ control shall be in operation at all times when the Galvanizing Line Spray Cleaning system is in operation.

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

D.1.6 Parametric Monitoring

The Permittee shall record the pressure drop across the mist eliminator at least once per day when the associated Galvanizing Line Spray Cleaning system unit is in operation. When, for any one reading, the pressure drop across the mist eliminator is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 0.1 and 0.6 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions and Exceedances contains the Permittee’s obligation with regard to the reasonable response steps.
required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure drop shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months, or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

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

D.1.7 Record Keeping Requirement

(a) To document the compliance status with Condition D.1.6, the Permittee shall maintain daily records of the Pressure Drop for the mist eliminator. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

(b) Section C - General Record Keeping contains the Permittee's obligations with regard to the records required by this condition.
SECTION D.2  EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Package Boilers

(b) Three (3) Package Boilers, identified as PB-1, PB-2, and PB-3, constructed in July 1999, with a nominal capacity of 32.7 million BTU per hour each, fired on natural gas, using low NOx burners for control, and exhausting to stacks 005A, 005B, and 005C respectively.

Under NSPS Subpart Dc, Package Boilers PB-1, PB-2, and PB-3 are considered affected sources.

(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 Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(b), particulate matter (PM) emissions from the boilers (PB-1, PB-2, and PB-3) shall be limited to 0.01 grain per dry standard cubic foot.

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee’s obligation with regard to the preventive maintenance plan required by this condition.
SECTION D.3  EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description: Pickle Line**

(c) Pickle Line, identified as PL-1, constructed in July 1999, with a nominal capacity of 300 tons of steel per hour, utilizing Hydrochloric Acid as the pickling liquor, consisting of the following equipment:

1. Four (4) pickle tanks, identified as pickle tank #1 through pickle tank #4, with a nominal capacity of 5,200 gallons each, using a packed tower wet scrubber (including a mist eliminator pad) and identified as ECU-1 for HCl emission control, and exhausting to stack 001.

2. One (1) five-chamber cascading re-circulating rinse tank, identified as rinse tank #1, with a nominal capacity of 3,800 gallons, using scrubber ECU-1 for control, and exhausting to stack 001.

3. One (1) Strip Dryer, identified as PL-dryer, with a nominal capacity of 5,900 scfm of air heated in the package boilers, and exhausting inside the building.

4. Two (2) fresh acid storage tanks, identified as Tank #1 and Tank #2, with a nominal capacity of 24,000 gallons each, using scrubber ECU-1 for control, and exhausting to stack 001.

5. Four (4) pickle liquor re-circulation tanks, identified as Tank #3 through Tank #6, with a nominal capacity of 12,000 gallons each, using scrubber ECU-1 for control, and exhausting to stack 001.

6. One (1) spent rinse water storage tank, identified as Tank #9, with a nominal capacity of 12,000 gallons, using scrubber ECU-1 for control, and exhausting to stack 001.

7. Two (2) spent pickle liquor storage tanks, identified as Tank #7 and #8, with a nominal capacity of 24,000 gallons each, using scrubber ECU-1 for control, and exhausting to stack 001.

8. One (1) welding operation and four (4) shearing operations to conduct continuous pickling.

9. One (1) Pickle Line Scale Breaker, controlled by a baghouse, and exhausting to stack 007.

**Insignificant Activities:**

(n) Other activities or categories (potential emissions of: less than 25 pounds per day of CO or NOx; less than 5 pounds per hour or 25 pounds per day of SO2 or PM10; less than 3 pounds per hour or 15 pounds per day of VOC; less than 3.29 pounds per day or 0.6 tons per year for lead or lead compounds):

6. One (1) electrostatic oiler on pickle line with a nominal capacity of 350 mg/M² treating steel with a gauge thickness of 0.050" to 0.250", using no control and exhausting to the building interior.

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

(a) The PM emissions from the Pickle Line Scale Breaker Baghouse (stack 007) shall not exceed 2.72 pounds per hour.

(b) The PM10 emissions from the Pickle Line Scale Breaker Baghouse (stack 007) shall not exceed 2.72 pounds per hour.

(c) The PM2.5 emissions from the Pickle Line Scale Breaker Baghouse (stack 007) shall not exceed 2.72 pounds per hour.

Compliance with this PM, PM10, and PM2.5 limit in conjunction with the total potential to emit of PM, PM10, and PM2.5 from the rest of the source, shall ensure that the source-wide PM, PM10, and PM2.5 emissions are less than 250 tons per twelve (12) consecutive month period, rendering the requirements of 326 IAC 2-2 (PSD) not applicable.

D.3.2 HAP Minor Limits [40 CFR 63]
In order to assure this source is an area source of HAPs under Section 112 of the Clean Air Act (CAA), the Permittee shall comply with the following:

(a) The HCl emissions from the Pickle Line (stack 001) shall not exceed 2.05 pounds per hour.

Compliance with this limit, combined with the potential to emit HAP from all other emission units at the source, shall limit the source-wide potential to emit single HAP to less than 10 tons per twelve (12) consecutive month period and the source-wide potential to emit total HAPs to less than 25 tons per twelve (12) consecutive month period, and shall render the source an area source of HAP emissions under Section 112 of the Clean Air Act (CAA).

D.3.3 Particulate Matter (PM) [326 IAC 6.5-1-2]

(a) Pursuant to 326 IAC 6.5-1-2(a), the Pickle Line Scale Breaker shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot (gr/dscf) of particulate matter.

(b) Pursuant to 326 IAC 6.5-1-2(a), the tanks and dryer of the Pickle Line (stack 001) shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot (gr/dscf) of particulate matter.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]
A Preventive Maintenance Plan is required for this facility and its 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.3.5 Particulate Matter

(a) In order to comply with Conditions D.3.1 and D.3.3(a), the Pickle Line Scale Breaker baghouse controlling PM, PM10, and PM2.5 emissions from the Pickle Line Scale Breaker shall be in operation at all times when the Pickle Line Scale Breaker is in operation.
(b) In order to comply with Conditions D.3.2(a) and D.3.3(b), the wet scrubber ECU-1 controlling PM, PM$_{10}$, PM$_{2.5}$, and HCl emissions from the Pickle Line's tanks and dryer exhausting through stack 001 shall be in operation at all times when said emission units are in operation.

D.3.6 Testing Requirements [326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.3.1 and D.3.3(a), the Permittee shall perform PM, PM$_{10}$, and PM$_{2.5}$ testing on the Pickle Line Scale Breaker utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition. PM$_{10}$ and PM$_{2.5}$ include filterable and condensable PM.

(b) In order to demonstrate compliance with Condition D.3.2, the Permittee shall perform HCl testing on the Pickle Line (stack 001) utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.

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

D.3.7 Visible Emissions Notations [40 CFR 64]

(a) Visible emission notations of the Pickle Line Scale Breaker baghouse stack exhaust (stack 007), 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. A visible emission notation that is abnormal but does not exceed an applicable opacity limit is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.3.8 Parametric Monitoring

(a) The Permittee shall record the water flow rate of the wet scrubber ECU-1 at least once per day when the tanks and dryer of Pickle Line's tanks and dryer are in operation. When for any one reading, the water flow rate of the scrubber is below the minimum range, the Permittee shall take a reasonable response. The minimum flow rate for this unit is 1.0 gallon per minute unless a different minimum is determined during the latest stack test. A water flow rate reading that is below the minimum is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.
permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to reasonable response steps required by this condition.

Failure to take response steps shall be considered a deviation from this permit. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to reasonable response steps required by this condition.

The instrument used for determining the water flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated or replaced at least once every six (6) months, or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

The above monitoring conditions satisfy the Compliance Assurance Monitoring (CAM) for PM, PM$_{10}$, and PM$_{2.5}$ for the Pickle Line Scale Breaker, and the Pickle Line's tanks and dryer for HCl.

D.3.9 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.3.10 Record Keeping Requirement

(a) To document compliance with Condition D.3.7, the Permittee shall maintain records of daily visible emission notations of the baghouse stack exhaust (stack 007). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document the compliance status with D.3.8, the Permittee shall maintain daily records of the water flow rate across the wet scrubber ECU-1. The Permittee shall include in its daily record when a water flow rate reading is not taken and the reason for the lack of a water flow rate reading (e.g. the process did not operate that day).

(c) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligation with regard to the records required by this condition.
SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) One (1) Batch Annealing system, constructed in 1999, consisting of twelve (12) bases and six (6) batch annealing furnaces. The furnaces are identified as BA-01 through BA-06, with a nominal capacity of 6.0 million BTU per hour each, fired on natural gas but also consuming evaporated oil from the coils being annealed, using low NOx burners for control, and exhausting to the building interior.

(e) Two (2) Stand Reversing Cold Mill, identified as RCM-1, constructed in January 2000, with a nominal capacity of 400,000 pounds of steel per hour, using a baghouse for control, and exhausting to stack 004.

(f) One (1) Temper Mill, identified as TM-1, constructed in July 1999, with a nominal capacity of 158,000 pounds of steel per hour, using no control and exhausting to the building interior.

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

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

D.4.1 Prevention of Significant Deterioration (PSD) Minor Limit [326 IAC 2-2]

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

(a) The PM emissions from the Two Stand Reversing Cold Mill (RCM-1), shall not exceed 18.22 pounds per hour.

(b) The PM_{10} emissions from the Two Stand Reversing Cold Mill (RCM-1), shall not exceed 18.22 pounds per hour.

(c) The PM_{2.5} emissions from the Two Stand Reversing Cold Mill (RCM-1), shall not exceed 18.22 pounds per hour.

Compliance with these limits in conjunction with the total potential to emit of PM, PM_{10}, and PM_{2.5} from the rest of the source, shall ensure that the source-wide PM, PM_{10}, and PM_{2.5} emissions are less than 250 tons per twelve (12) consecutive month period, each and the PM, PM_{10}, and PM_{2.5} emissions of the nested portion are less than 100 tons per twelve (12) consecutive month period, each rendering the requirements of 326 IAC 2-2 (PSD) not applicable.

D.4.2 Particulate Matter Limitation [326 IAC 6.5-1-2]

(a) Pursuant to 326 IAC 6.5-1-2(a), the Two Stand Reversing Cold Mill (RCM-1) shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot (gr/dscf) of particulate matter.

(b) Pursuant to 326 IAC 6.5-1-2(a), the Batch Annealing System (BA01-BA06), and Temper Mill (TM-1) shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot (gr/dscf) of particulate matter, each.

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

A Preventive Maintenance Plan is required for this facility and its control device. 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 Testing Requirements [326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.4.1 and D.4.2(a), the Permittee shall perform PM, PM$_{10}$, and PM$_{2.5}$ testing on the RCM-1 outlet utilizing methods as approved by the Commissioner. Testing shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition. PM$_{10}$ and PM$_{2.5}$ include filterable and condensable PM.

D.4.5 Particulate Matter

In order to comply with Conditions D.4.1 and D.4.2(a), the baghouse (stack 004) for PM, PM$_{10}$, and PM$_{2.5}$ control shall be in operation at all times when the Two Stand Reversing Cold Mill (RCM-1) is in operation.

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

D.4.6 Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouse at least once per day when the associated Two Stand Reversing Cold Mill unit is in operation. When, for any one reading, the pressure drop across the baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 0.5 and 3.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions and Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instruments used for determining the pressure shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months, or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

The above monitoring condition satisfies the Compliance Assurance Monitoring (CAM) for PM, PM$_{10}$, and PM$_{2.5}$ for the Two Stand Reversing Cold Mill RCM-1.

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

D.4.7 Record Keeping Requirement

(a) To document the compliance status with Condition D.4.6, the Permittee shall maintain daily records of the Pressure Drop across the RCM-1 baghouse. The Permittee shall include in its daily record when the readings are not taken and the reason for the lack of the readings (e.g., the process did not operate that day).

(b) Section C - General Record Keeping Requirements, of this permit contains the Permittee's obligation with regard to the records required by this condition.
SECTION D.5  EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Specifically Regulated Insignificant Activities

(b) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower, including the following: two (2) emergency generators each nominally rated at 1447 BHP (69.7 gallons per hour), installed in 1999.

Under NESHAP Subpart ZZZZ, the two emergency generators are considered affected sources.

(c) Three (3) natural gas heaters, installed in 2010, with a nominal rating of 150,000 BTU/hr each.

(d) One (1) pot rig heater on galvanizing line, installed in 1999, with a nominal capacity of 2.5 MMBTU/hr.

(e) Three (3) cleaning section burners on the galvanizing line, with a nominal capacity of 8 MMBtu/hr, each. Two of the burners were installed in 1999. The third burner was installed in 2014. All are fired with natural gas.

(f) Three (3) gasoline generator/welders, all installed in 1999. The generator/welders are rated at 22hp (55,977 BTU/hr), 20hp (50,888 BTU/hr), and 12.75hp (32,441 BTU/hr). The engines associated with the welders are non-road engines.

(g) The following equipment related to manufacturing activities: brazing equipment, cutting torches, soldering equipment, and welding equipment including:

(1) Six (6) Oxy-acetylene torch sets with a nominal cutting rate of approximately 3 ft/min cutting metal with a maximum thickness of approximately 1 ½ inches.

(2) Seven (7) plasma cutters with a nominal cutting rate of approximately 2 ft/min cutting metal with a maximum thickness of approximately 1 inch.

(3) Six (6) plug-in MIG welders with a nominal electrode consumption of 3.0 lbs/hr each.

(4) One (1) plug-in TIG welder with a nominal electrode consumption of 1 lb/hr.

(5) Two (2) plug-in stick welders with a nominal electrode consumption of 1 lbs/hr.

(h) Noncontact cooling tower systems with the following: Natural draft cooling towers not regulated under a NESHAP.

(i) Seven (7) space heating units, with no identification, constructed in August 1999, with a nominal capacity of 6.6 million BTU per hour each, fired on natural gas.

(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 Matter Limitation [326 IAC 6.5-1-2]

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the seven (7) space heating units, with no identification, constructed in August 1999, with a maximum capacity of 6.6 million BTU per hour each, fired on natural gas shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(b)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the Diesel Emergency Generators shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(c)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the three (3) natural gas heaters, installed in 2010, with a rating of 150,000 BTU/hr each, shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(d)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the pot rig heater on the galvanizing line shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(e)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the three (3) cleaning section burners on the galvanizing line shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(f)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the three (3) gasoline generator/welders shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(g)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the six (6) Oxy-acetylene torch sets shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(h)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the seven (7) plasma cutters shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(i)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the six (6) plug-in MIG welders shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(j)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the TIG welder shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(k)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the plug-in stick welders shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
<tr>
<td>(l)</td>
<td>Pursuant to 326 IAC 6.5-1-2(a), the noncontact cooling tower systems shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.</td>
</tr>
</tbody>
</table>
SECTION D.6  EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Specifically Regulated Insignificant Activities

(j) Two (2) cold cleaner degreasers with remote solvent reservoirs.

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

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control and Equipment Operating Requirements), the Permittee shall:

Ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

D.6.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

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

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for this facility and its control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.
D.6.4 Record Keeping Requirements

(a) Pursuant to 326 IAC 8-3-8(c)(2), on and after January 1, 2015, the following records shall be maintained for each purchase of cold cleaner degreaser solvent:

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

(2) The date of purchase (or invoice/bill dates of contract servicer indicating service date).

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased.

(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(b) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligation with regard to the records required by this condition.
Facility Description:

(b) Three (3) Package Boilers, identified as PB-1, PB-2, and PB-3, constructed in July 1999, with a nominal capacity of 32.7 million BTU per hour each, fired on natural gas, using low NOx burners for control, and exhausting to stacks 005A, 005B, and 005C respectively.

Under NSPS Subpart Dc, Package Boilers PB-1, PB-2, and PB-3 are considered affected sources.

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

New Source Performance Standards (NSPS) Requirements [40 CFR Part 60]

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, except as otherwise specified in 40 CFR Part 60, Subpart Dc.

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

The Permittee shall comply with the applicable provisions of 40 CFR Part 60, Subpart Dc (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 12 for the emission units listed above. Where the NSPS provides options for compliance, nothing in this condition precludes the Permittee from choosing among those options or requires the Permittee to use a particular option:

(1) 40 CFR 60.40c
(2) 40 CFR 60.41c
(3) 40 CFR 60.48c(g) and (i)
SECTION E.2 NESHAP

Facility Description:

Specifically Regulated Insignificant Activities

(b) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower, including the following: two (2) emergency generators each nominally rated at 1447 BHP (69.7 gallons per hour), installed in 1999.

Under NESHAP Subpart ZZZZ, the two emergency generators are considered existing affected sources.

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

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


(a) Pursuant to 40 CFR 63.6665, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in 40 CFR Part 63, Subpart ZZZZ, in accordance with the schedule 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 Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana  46204

E.2.2 National Emission 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 applicable provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 12, for the emission units listed above. Where the NESHAP provides options for compliance, nothing in this condition precludes the Permittee from choosing among those options or requires the Permittee to use a particular option:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585 (a), (c), and (d)
(3) 40 CFR 63.6590(a)(1)(iii) and (iv)
(4) 40 CFR 63.6595(a)(1) and (c)
(5) 40 CFR 63.6603(a)
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625(e)(3), (f), (h), and (i)
(8) 40 CFR 63.6640(a), (e), (f)(1), (f)(2)(i), and (f)(4)
(9) 40 CFR 63.6645(a)(5)
(10) 40 CFR 63.6655
(11) 40 CFR 63.6660
(12) 40 CFR 63.6665
(13) 40 CFR 63.6670
(14) 40 CFR 63.6675
(15) Table 2d (item 4)
(16) Table 6 (item 9)
(17) Table 8
SECTION E.3  NESHAP

**Emissions Unit Description:**

(a) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

Under NESHAP Subpart CCCCCC, the gasoline fuel transfer dispensing operation is considered an affected source.

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

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National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements

### E.3 National Emission Standards for Hazardous Air Pollutants for Gasoline-Dispensing Facilities

**NESHAP**

The Permittee shall comply with the applicable provisions of 40 CFR Part 63, Subpart CCCCCC (included as Attachment D to the operating permit) for the emission unit(s) listed above. Where the NESHAP provides options for compliance, nothing in this condition precludes the Permittee from choosing among those options or requires the Permittee to use a particular option:

1. 40 CFR 63.11110
2. 40 CFR 63.11111(a), (b), (e), (h), (i)
3. 40 CFR 63.11112(a), (d)
4. 40 CFR 63.11113(b)
5. 40 CFR 63.11115
6. 40 CFR 63.11116
7. 40 CFR 63.11125(d)
8. 40 CFR 63.11130
9. 40 CFR 63.11131
10. 40 CFR 63.11132
11. Table 3
### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

#### OFFICE OF AIR QUALITY

#### COMPLIANCE AND ENFORCEMENT BRANCH

#### PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Steel Dynamics Heartland, LLC  
Source Address: 455 West Industrial Drive, Terre Haute, Indiana 47802  
Part 70 Permit No.: T167-40187-00120

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

Please check what document is being certified:

- [ ] Annual Compliance Certification Letter
- [ ] Test Result (specify)
- [ ] Report (specify)
- [ ] Notification (specify)
- [ ] Affidavit (specify)
- [ ] Other (specify)

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

| Signature: |  |
| Printed Name: |  |
| Title/Position: |  |
| Phone: |  |
| Date: |  |
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Steel Dynamics Heartland, LLC
Source Address: 455 West Industrial Drive, Terre Haute, Indiana 47802
Part 70 Permit No.: T167-40187-00120

This form consists of 2 pages

☐ This is an emergency as defined in 326 IAC 2-7-1(12).
  • The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime
    business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  • The Permittee must submit notice in writing or by facsimile within two (2) working days
    (Facsimile Number: 317-233-6865), and follow the other requirements of
    326 IAC 2-7-16.

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

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:
<table>
<thead>
<tr>
<th>If any of the following are not applicable, mark N/A</th>
<th>Page 2 of 2</th>
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<tbody>
<tr>
<td><strong>Date/Time Emergency started:</strong></td>
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<tr>
<td><strong>Date/Time Emergency was corrected:</strong></td>
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<tr>
<td><strong>Was the facility being properly operated at the time of the emergency?</strong></td>
<td>Y  N</td>
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<tr>
<td><strong>Type of Pollutants Emitted: TSP, PM-10, SO₂, VOC, NOₓ, CO, Pb, other:</strong></td>
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<tr>
<td><strong>Estimated amount of pollutant(s) emitted during emergency:</strong></td>
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<tr>
<td><strong>Describe the steps taken to mitigate the problem:</strong></td>
<td></td>
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<tr>
<td><strong>Describe the corrective actions/response steps taken:</strong></td>
<td></td>
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<tr>
<td><strong>Describe the measures taken to minimize emissions:</strong></td>
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<tr>
<td><strong>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:</strong></td>
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Form Completed by: ____________________________

Title / Position: ____________________________

Date: ____________________________

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

Source Name: Steel Dynamics Heartland, LLC
Source Address: 455 West Industrial Drive, Terre Haute, Indiana 47802
Part 70 Permit No.: T167-40187-00120

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

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

<table>
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<tr>
<th>Permit Requirement</th>
<th>Date of Deviation</th>
<th>Duration of Deviation</th>
<th>Number of Deviations</th>
<th>Probable Cause of Deviation</th>
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Response Steps Taken:

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Form Completed by:____________________________

Title / Position: ______________________________

Date:________________________________________

Phone:________________________________________
This plan addresses the fugitive particulate matter (dust) generated by the operation of the Steel Dynamics Heartland facility. The Steel Dynamics Heartland Facility is Cold Mill - Steel Processing Plant.

1. **Company Address:**
   
   Steel Dynamics Heartland  
   455 West Industrial Drive  
   Terre Haute, IN 47802

2. **Person Responsible for Plan Implementation:**
   
   Roberto Bohrer  
   Operations Manager  
   455 West Industrial Drive  
   Terre Haute, IN 47802

3. **Process, Operations, and Areas which have the Potential to Emit Fugitive Dust:**
   
   a. Paved roadways and parking lots  
   b. Unpaved roadways  
   c. Unpaved areas within the coil storage area

4. **Measures Implemented to Control Fugitive Dust**

   **Paved Roadways and Parking Lots**
   
   Fugitive Dust Control Measures. A street sweeper or water truck is employed as necessary to minimize emission from paved roadways. Additionally, plant traffic is restricted to speeds of less than 25 miles per hour.

   **Unpaved Roadways and Areas Within the Coil Storage Area**
   
   Fugitive Dust Control Measures. A water truck is employed as necessary to minimize emission from unpaved roadways and the coil storage area. Additionally, plant traffic is restricted to speeds of less than 15 miles per hour.

5. **Plan Implementation**
   
   This plan is effective April 10, 2019.
Attachment B

Part 70 Operating Permit No: 167-40187-00120

[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 Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

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

§ 60.40c Applicability and delegation of authority.

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

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

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO₂) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

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

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

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

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

(h) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NOₓ standards under this subpart and the SO₂ standards under subpart J or subpart Ja of this part, as applicable.

(i) Temporary boilers are not subject to this subpart.
§ 60.41c Definitions.

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

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

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

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

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

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

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

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

Dry flue gas desulfurization technology means a SO2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.
Emerging technology means any SO\textsubscript{2} control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under § 60.48c(a)(4).

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

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

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

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

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

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

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

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

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

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

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

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17).
Steam generating unit means a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

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

Temporary boiler means a steam generating unit that combusts natural gas or distillate oil with a potential SO2 emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

(1) The equipment is attached to a foundation.

(2) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

Wet flue gas desulfurization technology means an SO2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO2.

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


§ 60.42c Standard for sulfur dioxide (SO2).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO2 emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO2 in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that:
(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere any gases that contain SO2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO2 emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere any gases that contain SO2 in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO2 emissions limit or the 90 percent SO2 reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO2 emissions shall neither:

(i) Cause to be discharged into the atmosphere any gases that contain SO2 in excess of 50 percent (0.50) of the potential SO2 emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere any gases that contain SO2 in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO2 reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

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

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

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

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

(d) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 215 ng/J (0.50 lb/MMBtu) heat input from oil; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of the following:

(1) The percent of potential SO2 emission rate or numerical SO2 emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;
(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/h); and

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

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

\[ E_s = \frac{K_a H_a + K_b H_b + K_c H_c}{H_a + H_b + H_c} \]

Where:

- \( E_s \) = SO2 emission limit, expressed in ng/J or lb/MMBtu heat input;
- \( K_a = 520 \) ng/J (1.2 lb/MMBtu);
- \( K_b = 260 \) ng/J (0.60 lb/MMBtu);
- \( K_c = 215 \) ng/J (0.50 lb/MMBtu);
- \( H_a \) = Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];
- \( H_b \) = Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and
- \( H_c \) = Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO2 emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO2 emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO2 control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

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

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

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

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

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

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

(i) The SO2 emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.
(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.


§ 60.43c Standard for particulate matter (PM).

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) An owner or operator of an affected facility that commences construction, reconstruction, or modification after
February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of
0.50 weight percent sulfur oil with other fuels not subject to a PM standard under § 60.43c and not using a post-
combustion technology (except a wet scrubber) to reduce PM or SO2 emissions is not subject to the PM limit in this
section.


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

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

(b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of the
steam generating unit. Compliance with the percent reduction requirements and SO2 emission limits under § 60.42c
shall be determined using a 30-day average. The first operating day included in the initial performance test shall be
scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but
not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period
does not have to be the maximum design heat input capacity, but must be representative of future operating
conditions.

(c) After the initial performance test required under paragraph (b) of this section and § 60.8, compliance with the
percent reduction requirements and SO2 emission limits under § 60.42c is based on the average percent reduction
and the average SO2 emission rates for 30 consecutive steam generating unit operating days. A separate
performance test is completed at the end of each steam generating unit operating day, and a new 30-day average
percent reduction and SO2 emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19
of appendix A of this part are used to determine the hourly SO2 emission rate (Eho ) and the 30-day average SO2
emission rate (Eao ). The hourly averages used to compute the 30-day averages are obtained from the CEMS.
Method 19 of appendix A of this part shall be used to calculate Eao when using daily fuel sampling or Method 6B of
appendix A of this part.

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

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

$$E_{ao} = \frac{E_{ao} - E_{wo}(1 - X_3)}{X_3}$$
Where:

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

\( E_{ho} = \text{Hourly SO}_2 \text{ emission rate, ng/J (lb/MMBtu)}; \)

\( E_w = \text{SO}_2 \text{ concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value } E_w \text{ for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure } E_w \text{ if the owner or operator selects to assume } E_w = 0. \)

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

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

(f) Affected facilities subject to the percent reduction requirements under § 60.42c(a) or (b) shall determine compliance with the SO\(_2\) emission limits under § 60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO\(_2\) emission rate is computed using the following formula:

\[
\%P_s = 100 \left( 1 - \frac{\%R_g}{100} \right) \left( 1 - \frac{\%R_f}{100} \right)
\]

Where:

\( \%P_s = \text{Potential SO}_2 \text{ emission rate, in percent;} \)

\( \%R_g = \text{SO}_2 \text{ removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent;} \) and

\( \%R_f = \text{SO}_2 \text{ removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.} \)

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

(i) To compute the \( \%P_s \), an adjusted \( \%R_g \) \( (\%R_g^o) \) is computed from \( E_{ao}^o \) from paragraph (e)(1) of this section and an adjusted average \( \text{SO}_2 \) inlet rate \( (E_{ai}^o) \) using the following formula:

\[
\%R_g^o = 100 \left( 1 - \frac{E_{ai}^o}{E_{ao}^o} \right)
\]

Where:

\( \%R_g^o = \text{Adjusted } \%R_g, \text{ in percent;} \)

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

\( E_{ai}^o = \text{Adjusted average } \text{SO}_2 \text{ inlet rate, ng/J (lb/MMBtu).} \)
(ii) To compute \( E_{hi0} \), an adjusted hourly SO\(_2\) inlet rate (\( E_{hi} \)) is used. The \( E_{hi0} \) is computed using the following formula:

\[
E_{hi0} = \frac{E_{hi} - E_w (1 - X_k)}{X_k}
\]

Where:

\( E_{hi0} = \) Adjusted \( E_{hi} \), ng/J (lb/MMBtu);

\( E_{hi} = \) Hourly SO\(_2\) inlet rate, ng/J (lb/MMBtu);

\( E_w = \) SO\(_2\) concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value \( E_w \) for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure \( E_w \) if the owner or operator elects to assume \( E_w = 0 \); and

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

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

(h) For affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO\(_2\) standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in § 60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO\(_2\) standards under § 60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO\(_2\) emissions data in calculating %Ps and \( E_{ho} \) under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %Ps or \( E_{ho} \) pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

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

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

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

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.
(2) Method 3A or 3B of appendix A-2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A-3 of this part or 17 of appendix A-6 of this part.

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

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

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

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

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

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

(6) For determination of PM emissions, an oxygen (O2) or carbon dioxide (CO2) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

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

(i) The O2 or CO2 measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

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

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

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

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

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

(2) Notify the Administrator 1 month before stopping use of the system.
(3) The monitor shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under § 60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O₂ (or CO₂ ) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used; and

(ii) For O₂ (or CO₂ ), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) As of January 1, 2012, and within 90 days after the date of completing each performance test, as defined in § 60.8, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/tnn/chief/ert/ert tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.
(d) The owner or operator of an affected facility seeking to demonstrate compliance under § 60.43c(e)(4) shall follow the applicable procedures under § 60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/h).


§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO₂ emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO₂ concentrations and either O₂ or CO₂ concentrations at the outlet of the SO₂ control device (or the outlet of the steam generating unit if no SO₂ control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under § 60.42c shall measure SO₂ concentrations and either O₂ or CO₂ concentrations at both the inlet and outlet of the SO₂ control device.

(b) The 1-hour average SO₂ emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under § 60.42c. Each 1-hour average SO₂ emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under § 60.13(h)(2). Hourly SO₂ emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

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

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

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

(3) For affected facilities subject to the percent reduction requirements under § 60.42c, the span value of the SO₂ CEMS at the inlet to the SO₂ control device shall be 125 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted, and the span value of the SO₂ CEMS at the outlet from the SO₂ control device shall be 50 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of § 60.42c, the span value of the SO₂ CEMS at the outlet from the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) shall be 125 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO₂ input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when
calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

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

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

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

§60.47c Emission monitoring for particulate matter.

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

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

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

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

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from
the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

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

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

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

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

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

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

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO2 or PM emissions and that are subject to an opacity standard in § 60.43c(c) are not required to operate a COMS if they follow the applicable procedures in § 60.48c(f).

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

(e) Owners and operators of an affected facility that is subject to an opacity standard in § 60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO2, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and
operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) Notification if an emerging technology will be used for controlling SO2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO2 emission limits of § 60.42c, or the PM or opacity limits of § 60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

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

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

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

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

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

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

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

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

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

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.
(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator.

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

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

(1) Calendar dates covered in the reporting period.

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

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

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

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

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

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

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

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

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

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

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

(1) For distillate oil:

(i) The name of the oil supplier;

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

(iii) The sulfur content or maximum sulfur content of the oil.
(2) For residual oil:

(i) The name of the oil supplier;

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

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

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

(3) For coal:

(i) The name of the coal supplier;

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

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

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

(4) For other fuels:

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

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

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

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

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in § 60.48c(f) to demonstrate compliance with the SO2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in § 60.42C to use fuel certification to demonstrate compliance with the SO2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.
(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

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

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

Part 70 Operating permit No: 167-40187-00120

[Downloaded from the eCFR on July 23, 2014]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

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

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

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

What This Subpart Covers

§63.6580 What is the purpose of subpart ZZZZ?

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

[73 FR 3603, Jan. 18, 2008]

§63.6585 Am I subject to this subpart?

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

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

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

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

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

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.
(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

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

This subpart applies to each affected source.

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

(1) Existing stationary RICE.

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

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

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

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

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

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

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

(3) Reconstructed stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.
(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

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

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

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

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

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

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

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

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;
(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.


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

(a) Affected sources. (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations, operating limitations, and other requirements no later than October 19, 2013.

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

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

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

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

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

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

(b) Area sources that become major sources. If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.
(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

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

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


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.


§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.

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

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

[78 FR 6701, Jan. 30, 2013]

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

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

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

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.
(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart III 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.


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

(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel.

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

(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.
(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.

[78 FR 6702, Jan. 30, 2013]

General Compliance Requirements

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

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

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


Testing and Initial Compliance Requirements

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

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

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

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

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

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

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

(2) The test must not be older than 2 years.
(3) The test must be reviewed and accepted by the Administrator.

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

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

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

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

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


§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.


§63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.
§63.6620 What performance tests and other procedures must I use?

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

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(c) [Reserved]

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

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

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

Where:

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

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

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

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (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:

\[
F_o = \frac{0.209 F_d}{F_c} \quad (Eq. 2)
\]

Where:
\( F_0 = \) Fuel factor based on the ratio of oxygen volume to the ultimate \( CO_2 \) volume produced by the fuel at zero percent excess air.

\[ 0.209 = \text{Fraction of air that is oxygen, percent/100.} \]

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

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

(ii) Calculate the \( CO_2 \) correction factor for correcting measurement data to 15 percent \( O_2 \), as follows:

\[ X_{CO2} = \frac{5.9}{F_0} \tag{Eq. 3} \]

Where:

\( X_{CO2} = CO_2 \) correction factor, percent.

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

(iii) Calculate the \( CO \), THC, and formaldehyde gas concentrations adjusted to 15 percent \( O_2 \) using \( CO_2 \) as follows:

\[ C_{adj} = C_d \times \frac{X_{CO2}}{\%CO_2} \tag{Eq. 4} \]

Where:

\( C_{adj} = \) Calculated concentration of \( CO \), THC, or formaldehyde adjusted to 15 percent \( O_2 \).

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

\( X_{CO2} = CO_2 \) correction factor, percent.

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

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

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

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

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

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

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

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

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

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

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

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

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

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

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

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


§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 O2 or CO2 according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

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

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

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

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion
(as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent 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.
(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

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

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

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

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.
(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The 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 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.


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

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

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

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

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least three test runs.
(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ 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 O₂ emissions simultaneously at the inlet and outlet of the control device.


Continuous Compliance Requirements

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

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

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

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

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

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

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

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:
(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O₂ using one of the O₂ measurement methods specified in Table 4 of this subpart. Measurements to determine O₂ 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 O₂ 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, an existing emergency stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.
(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the
The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.


Notifications, Reports, and Records

§63.6645  What notifications must I submit and when?

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

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

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

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

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

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

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

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

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

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

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

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

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).
(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

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

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.


§63.6650  What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

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

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

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

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

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

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

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

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

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

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

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

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

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

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

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

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

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

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

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

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

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

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

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

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

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

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

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii).
(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §63.13.

§63.6655 What records must I keep?

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

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

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

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

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

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

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

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

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

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

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.
(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

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

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

2. An existing stationary emergency RICE.

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

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

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

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


§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).


Other Requirements and Information

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

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

[75 FR 9678, Mar. 3, 2010]

§63.6670 Who implements and enforces this subpart?

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

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

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

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

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

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

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

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

§63.6675 What definitions apply to this subpart?

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

Alaska Railbelt Grid means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

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

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

Backup power for renewable energy means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see §63.14).

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

CAA means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Public Law 101-549, 104 Stat. 2399).
Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

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

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

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

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

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

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

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and 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).
(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;
(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 (NOx) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NOx, CO, and volatile organic compounds (VOC) into CO2, 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.
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 NOx (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

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

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

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

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

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

Subpart means 40 CFR part 63, subpart ZZZZ.

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

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

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:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following emission limitation, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 4SRB stationary RICE</td>
<td>a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or</td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O₂</td>
<td></td>
</tr>
</tbody>
</table>

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

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:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following operating limitation, except during periods of startup . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. existing, new and reconstructed 4SRB stationary RICE &gt;500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or existing, new and reconstructed 4SRB stationary RICE &gt;500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and using NSCR;</td>
<td>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)</td>
</tr>
<tr>
<td>2. existing, new and reconstructed 4SRB stationary RICE &gt;500 HP located at a major source of HAP emissions complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or existing, new and reconstructed 4SRB stationary RICE &gt;500 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2 and not using NSCR.</td>
<td>Comply with any operating limitations approved by the Administrator.</td>
</tr>
</tbody>
</table>

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

[78 FR 6706, Jan. 30, 2013]

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

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

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following emission limitation, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 2SLB stationary RICE</td>
<td>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</td>
<td>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)</td>
</tr>
<tr>
<td>2. 4SLB stationary RICE</td>
<td>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</td>
<td></td>
</tr>
</tbody>
</table>
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 O₂ |  

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

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

[78 FR 6707, Jan. 30, 2013]

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

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

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following requirement, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
</table>
| 1. Emergency stationary CI RICE and black start stationary CI RICE¹ | 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 | |
<p>| 3. Non-Emergency, non-black start stationary RICE 100≤HP≤300 HP | Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O₂. | |</p>
<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following requirement, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Non-Emergency, non-black start CI stationary RICE 300&lt;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>
</tr>
<tr>
<td>5. Non-Emergency, non-black start stationary CI RICE &gt;500 HP</td>
<td>a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O2; or b. Reduce CO emissions by 70 percent or more.</td>
<td></td>
</tr>
<tr>
<td>6. Emergency stationary SI RICE and black start stationary SI RICE.1</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>7. Non-Emergency, non-black start stationary SI RICE &lt;100 HP that are not 2SLB stationary RICE</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>8. Non-Emergency, non-black start 2SLB stationary SI RICE &lt;100 HP</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>For each . . .</td>
<td>You must meet the following requirement, except during periods of startup . . .</td>
<td>During periods of startup you must . . .</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500</td>
<td>Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O$_2$.</td>
<td></td>
</tr>
<tr>
<td>10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500</td>
<td>Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O$_2$.</td>
<td></td>
</tr>
<tr>
<td>11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500</td>
<td>Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O$_2$.</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O$_2$.</td>
<td></td>
</tr>
</tbody>
</table>

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.

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.

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]
Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

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

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following requirement, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
</table>
| 1.  Non-Emergency, non-black start CI stationary RICE ≤300 HP | a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;¹  
b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;  
c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. |
| 2.  Non-Emergency, non-black start CI stationary RICE 300<HP≤500 | a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O₂; 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 O₂; 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. |  |
<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following requirement, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
</table>
| 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.  
  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;  
  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;  
  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.  
  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;  
  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.  
  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;  
  b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary;  
  c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary. |
<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must meet the following requirement, except during periods of startup . . .</th>
<th>During periods of startup you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Non-emergency, non-black start 4SLB stationary RICE &gt;500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year</td>
<td>Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.</td>
<td></td>
</tr>
<tr>
<td>10. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP</td>
<td>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td>c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.</td>
</tr>
<tr>
<td>11. Non-emergency, non-black start 4SRB remote stationary RICE &gt;500 HP</td>
<td>a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td>c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.</td>
</tr>
<tr>
<td>12. Non-emergency, non-black start 4SRB stationary RICE &gt;500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year</td>
<td>Install NSCR to reduce HAP emissions from the stationary RICE.</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
<td>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
</tr>
</tbody>
</table>
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.  

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

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

[78 FR 6709, Jan. 30, 2013]

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

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

| For each . . . | Complying with the requirement to . . . | You must . . .  
--- | --- | ---  
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources | Reduce CO emissions and not using a CEMS | Conduct subsequent performance tests semiannually.  
2. 4SRB stationary RICE ≥5,000 HP located at major sources | Reduce formaldehyde emissions | Conduct subsequent performance tests semiannually.  
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.  
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.  

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

[78 FR 6711, Jan. 30, 2013]
Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

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

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

<table>
<thead>
<tr>
<th>For each 2SLB, 4SLB, and CI stationary RICE</th>
<th>Complying with the requirement to reduce CO emissions</th>
<th>You must</th>
<th>Using</th>
<th>According to the following requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and</td>
<td></td>
<td></td>
<td></td>
<td>(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 &gt;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 &gt;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.</td>
</tr>
<tr>
<td>ii. Measure the O₂ at the inlet and outlet of the control device; and</td>
<td></td>
<td></td>
<td>(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005)abc (heated probe not necessary)</td>
<td>(b) Measurements to determine O₂ must be made at the same time as the measurements for CO concentration.</td>
</tr>
<tr>
<td>iii. Measure the CO at the inlet and the outlet of the control device</td>
<td></td>
<td></td>
<td>(1) ASTM D6522-00 (Reapproved 2005)abc (heated probe not necessary) or Method 10 of 40 CFR part 60, appendix A-4</td>
<td>(c) The CO concentration must be at 15 percent O₂, dry basis.</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You must . . .</td>
<td>Using . . .</td>
<td>According to the following requirements . . .</td>
</tr>
<tr>
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<td>---</td>
<td>---</td>
</tr>
<tr>
<td>2. 4SRB stationary RICE</td>
<td>a. reduce formaldehyde emissions</td>
<td>i. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device; and</td>
<td>(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)</td>
<td>(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 &gt;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 &gt;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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Measure O₂ at the inlet and outlet of the control device; and</td>
<td>(1) Method 3 of 40 CFR part 60, appendix A-3, or Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03^a</td>
<td>(a) Measurements to determine O₂ concentration must be made at the same time as the measurements for formaldehyde or THC concentration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Measure moisture content at the inlet and outlet of the control device; and</td>
<td>(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</td>
<td>(a) Formaldehyde concentration must be at 15 percent O₂, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. If demonstrating compliance with the formaldehyde percent reduction requirement, measure formaldehyde at the inlet and the outlet of the control device</td>
<td>(1) Method 25A, reported as propane, of 40 CFR part 60, appendix A-7</td>
<td>(a) THC concentration must be at 15 percent O₂, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You must . . .</td>
<td>Using . . .</td>
<td>According to the following requirements . . .</td>
</tr>
<tr>
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<td>-----------------------------------------------</td>
</tr>
<tr>
<td>3. Stationary RICE</td>
<td>a. limit the concentration of formaldehyde or CO in the stationary RICE exhaust</td>
<td>i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary RICE; and</td>
<td>(a) For formaldehyde, CO, O(_2), and moisture measurement ducts (\leq 6) inches in diameter may be sampled at a single point located at the duct centroid and ducts (&gt;6) and (\leq 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 (&gt;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.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Determine the O(_2) concentration of the stationary RICE exhaust at the sampling port location; and</td>
<td>(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)</td>
<td>(a) Measurements to determine O(_2) concentration must be made at the same time and location as the measurements for formaldehyde or CO concentration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and</td>
<td>(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</td>
<td>(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. Measure formaldehyde at the exhaust of the stationary RICE; or</td>
<td>(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</td>
<td>(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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>v. measure CO at the exhaust of the stationary RICE</td>
<td>(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</td>
<td>(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.</td>
</tr>
</tbody>
</table>
You may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

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

[79 FR 11290, Feb. 27, 2014]

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

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

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>Complying with the requirement to . . .</th>
<th>You have demonstrated initial compliance if . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP</td>
<td>a. Reduce CO emissions and using oxidation catalyst, and using a CPMS</td>
<td>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.</td>
</tr>
<tr>
<td>2. Non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP</td>
<td>a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS</td>
<td>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.</td>
</tr>
<tr>
<td>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP</td>
<td>a. Reduce CO emissions and not using oxidation catalyst</td>
<td>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.</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You have demonstrated initial compliance if . . .</td>
</tr>
<tr>
<td>----------------</td>
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<td>--------------------------------------------------</td>
</tr>
<tr>
<td>4. Non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP</td>
<td>a. Limit the concentration of CO, and not using oxidation catalyst</td>
<td>i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and&lt;br&gt;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&lt;br&gt;iii. You have recorded the approved operating parameters (if any) during the initial performance test.</td>
</tr>
<tr>
<td>5. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP</td>
<td>a. Reduce CO emissions, and using a CEMS</td>
<td>i. You have installed a CEMS to continuously monitor CO and either O₂ or CO₂ at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and&lt;br&gt;ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and&lt;br&gt;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.</td>
</tr>
<tr>
<td>6. Non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP</td>
<td>a. Limit the concentration of CO, and using a CEMS</td>
<td>i. You have installed a CEMS to continuously monitor CO and either O₂ or CO₂ at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and&lt;br&gt;ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and&lt;br&gt;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.</td>
</tr>
<tr>
<td>7. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP</td>
<td>a. Reduce formaldehyde emissions and using NSCR</td>
<td>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</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You have demonstrated initial compliance if . . .</td>
</tr>
<tr>
<td>---------------</td>
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<td>--------------------------------------------------</td>
</tr>
</tbody>
</table>
| 8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP | a. Reduce formaldehyde emissions and not using NSCR | 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. |
| 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 O₂, 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 O₂, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and  
   ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and  
   iii. You have recorded the approved operating parameters (if any) during the initial performance test. |
| 11. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP | a. Reduce CO emissions | i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction. |
### 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:

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>Complying with the requirement to . . .</th>
<th>You must demonstrate continuous compliance if . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. Existing non-emergency stationary RICE (100 \leq HP \leq 500) located at a major source of HAP and existing non-emergency stationary CI RICE (300 \leq HP \leq 500) located at an area source of HAP</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 (O_2), dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.</td>
</tr>
<tr>
<td>13. Existing non-emergency 4SLB stationary RICE (&gt;500) HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year</td>
<td>a. Install an oxidation catalyst</td>
<td>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.</td>
</tr>
<tr>
<td>14. Existing non-emergency 4SRB stationary RICE (&gt;500) HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year</td>
<td>a. Install NSCR</td>
<td>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.</td>
</tr>
</tbody>
</table>

[78 FR 6712, Jan. 30, 2013]
<table>
<thead>
<tr>
<th>For each . . .</th>
<th>Complying with the requirement to . . .</th>
<th>You must demonstrate continuous compliance by . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE &gt;500 HP located at a major source of HAP</td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</td>
<td>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.</td>
</tr>
<tr>
<td>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and existing non-emergency stationary CI RICE &gt;500 HP</td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
<td></td>
</tr>
<tr>
<td>4. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP</td>
<td>ii. Reducing these data to 4-hour rolling averages; and</td>
<td>iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</td>
</tr>
<tr>
<td></td>
<td>i. Collecting the catalyst inlet temperature data according to §63.6625(b); and</td>
<td>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.</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
</tr>
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</tr>
<tr>
<td>5. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP</td>
<td>a. Reduce formaldehyde emissions and not using NSCR</td>
<td>i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Reducing these data to 4-hour rolling averages; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
</tr>
<tr>
<td>6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP</td>
<td>a. Reduce formaldehyde emissions</td>
<td>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</td>
</tr>
<tr>
<td>7. New or reconstructed non-emergency stationary RICE &gt;500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP</td>
<td>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR</td>
<td>i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and</td>
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<tr>
<td></td>
<td></td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
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<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</td>
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<td>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.</td>
</tr>
<tr>
<td>8. New or reconstructed non-emergency stationary RICE &gt;500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP</td>
<td>a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR</td>
<td>i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
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<tr>
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<tr>
<td>9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE &lt;100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE &gt;500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE &gt;500 HP located at an area source of HAP that are remote stationary RICE</td>
<td>a. Work or Management practices</td>
<td>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.</td>
</tr>
<tr>
<td>10. Existing stationary CI RICE &gt;500 HP that are not limited use stationary RICE</td>
<td>a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst</td>
<td>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.</td>
</tr>
<tr>
<td>11. Existing stationary CI RICE &gt;500 HP that are not limited use stationary RICE</td>
<td>a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst</td>
<td>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</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
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<td>iii. Reducing these data to 4-hour rolling averages; and</td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
</tr>
<tr>
<td>12. Existing limited use CI stationary RICE &gt;500 HP</td>
<td>a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst</td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and</td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
</tr>
<tr>
<td></td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</td>
</tr>
<tr>
<td></td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
<td>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limit established during the performance test.</td>
</tr>
<tr>
<td>13. Existing limited use CI stationary RICE &gt;500 HP</td>
<td>a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst</td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and</td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
</tr>
<tr>
<td></td>
<td>iii. Reducing these data to 4-hour rolling averages; and</td>
<td>iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</td>
</tr>
<tr>
<td>For each . . .</td>
<td>Complying with the requirement to . . .</td>
<td>You must demonstrate continuous compliance by . . .</td>
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</tr>
<tr>
<td>14. Existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year</td>
<td>a. Install an oxidation catalyst</td>
<td>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\textsubscript{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.</td>
</tr>
<tr>
<td>15. Existing non-emergency 4SRB stationary RICE &gt;500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year</td>
<td>a. Install NSCR</td>
<td>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\textsubscript{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.</td>
</tr>
</tbody>
</table>

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

[78 FR 6715, Jan. 30, 2013]
<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must submit a . . .</th>
<th>The report must contain . . .</th>
<th>You must submit the report . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Existing non-emergency, non-black start stationary RICE 100s≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE &gt;500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE &gt;300 HP located at an area source of HAP; new or reconstructed non-emergency stationary RICE &gt;500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP</td>
<td>Compliance report</td>
<td>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</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>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</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4).</td>
<td>i. Semiannually according to the requirements in §63.6650(b).</td>
</tr>
<tr>
<td>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</td>
<td>Report</td>
<td>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</td>
<td>i. Annually, according to the requirements in §63.6650.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and</td>
<td>i. See item 2.a.i.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Any problems or errors suspected with the meters.</td>
<td>i. See item 2.a.i.</td>
</tr>
<tr>
<td>3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE &gt;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</td>
<td>Compliance report</td>
<td>a. The results of the annual compliance demonstration, if conducted during the reporting period.</td>
<td>i. Semiannually according to the requirements in §63.6650(b)(1)-(5).</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>General provisions citation</th>
<th>Subject of citation</th>
<th>Applies to subpart</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>§63.1</td>
<td>General applicability of the General Provisions</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.2</td>
<td>Definitions</td>
<td>Yes</td>
<td>Additional terms defined in §63.6675.</td>
</tr>
<tr>
<td>§63.3</td>
<td>Units and abbreviations</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.4</td>
<td>Prohibited activities and circumvention</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.5</td>
<td>Construction and reconstruction</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(a)</td>
<td>Applicability</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(b)(1)-(4)</td>
<td>Compliance dates for new and reconstructed sources</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(b)(5)</td>
<td>Notification</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(b)(6)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§63.6(b)(7)</td>
<td>Compliance dates for new and reconstructed area sources that become major sources</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(c)(1)-(2)</td>
<td>Compliance dates for existing sources</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(c)(3)-(4)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§63.6(c)(5)</td>
<td>Compliance dates for existing area sources that become major sources</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.6(d)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§63.6(e)</td>
<td>Operation and maintenance</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>§63.6(f)(1)</td>
<td>Applicability of standards</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>§63.6(f)(2)</td>
<td>Methods for determining compliance</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(f)(3)</td>
<td>Finding of compliance</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(g)(1)-(3)</td>
<td>Use of alternate standard</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.6(h)</td>
<td>Opacity and visible emission standards</td>
<td>No.</td>
<td>Subpart ZZZZ does not contain opacity or visible emission standards.</td>
</tr>
<tr>
<td>§63.6(i)</td>
<td>Compliance extension procedures and criteria</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>General provisions citation</td>
<td>Subject of citation</td>
<td>Applies to subpart</td>
<td>Explanation</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>§63.6(j)</td>
<td>Presidential compliance exemption</td>
<td>Yes</td>
<td>Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.</td>
</tr>
<tr>
<td>§63.7(a)(1)-(2)</td>
<td>Performance test dates</td>
<td>Yes</td>
<td>Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.</td>
</tr>
<tr>
<td>§63.7(a)(3)</td>
<td>CAA section 114 authority</td>
<td>Yes</td>
<td>Subpart ZZZZ specifies test methods at §63.6620.</td>
</tr>
<tr>
<td>§63.7(b)(1)</td>
<td>Notification of performance test</td>
<td>Yes</td>
<td>Except that §63.7(b)(1) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.7(b)(2)</td>
<td>Notification of rescheduling</td>
<td>Yes</td>
<td>Except that §63.7(b)(2) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.7(c)</td>
<td>Quality assurance/test plan</td>
<td>Yes</td>
<td>Except that §63.7(c) only applies as specified in §63.6645.</td>
</tr>
<tr>
<td>§63.7(d)</td>
<td>Testing facilities</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.7(e)(1)</td>
<td>Conduct of performance tests and reduction of data</td>
<td>Yes</td>
<td>Subpart ZZZZ specifies test methods at §63.6620.</td>
</tr>
<tr>
<td>§63.7(e)(2)</td>
<td>Administrator may require other testing under section 114 of the CAA</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.7(f)</td>
<td>Alternative test method provisions</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.7(g)</td>
<td>Performance test data analysis, recordkeeping, and reporting</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.7(h)</td>
<td>Waiver of tests</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.8(a)(1)</td>
<td>Applicability of monitoring requirements</td>
<td>Yes</td>
<td>Subpart ZZZZ contains specific requirements for monitoring at §63.6625.</td>
</tr>
<tr>
<td>§63.8(a)(2)</td>
<td>Performance specifications</td>
<td>Yes</td>
<td></td>
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<tr>
<td>§63.8(a)(3)</td>
<td>[Reserved]</td>
<td></td>
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<td>§63.8(a)(4)</td>
<td>Monitoring for control devices</td>
<td>No</td>
<td></td>
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<tr>
<td>§63.8(b)(1)</td>
<td>Monitoring</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.8(b)(2)-(3)</td>
<td>Multiple effluents and multiple monitoring systems</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.8(c)(1)</td>
<td>Monitoring system operation and maintenance</td>
<td>Yes</td>
<td></td>
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<tr>
<td>§63.8(c)(1)(i)</td>
<td>Routine and predictable SSM</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>§63.8(c)(1)(ii)</td>
<td>SSM not in Startup Shutdown Malfunction Plan</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.8(c)(1)(iii)</td>
<td>Compliance with operation and maintenance requirements</td>
<td>No</td>
<td></td>
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<tr>
<td>§63.8(c)(2)-(3)</td>
<td>Monitoring system installation</td>
<td>Yes</td>
<td></td>
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<td>§63.8(c)(4)</td>
<td>Continuous monitoring system (CMS) requirements</td>
<td>Yes</td>
<td>Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).</td>
</tr>
<tr>
<td>§63.8(c)(5)</td>
<td>COMS minimum procedures</td>
<td>No</td>
<td>Subpart ZZZZ does not require COMS.</td>
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<tr>
<td>§63.8(c)(6)-(8)</td>
<td>CMS requirements</td>
<td>Yes</td>
<td>Except that subpart ZZZZ does not require COMS.</td>
</tr>
<tr>
<td>General provisions citation</td>
<td>Subject of citation</td>
<td>Applies to subpart</td>
<td>Explanation</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------------</td>
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<tr>
<td>§63.8(d)</td>
<td>CMS quality control</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>§63.8(e)</td>
<td>CMS performance evaluation</td>
<td>Yes</td>
<td>Except for §63.8(e)(5)(ii), which applies to COMS.</td>
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<tr>
<td>§63.8(f)(1)-(5)</td>
<td>Alternative monitoring method</td>
<td>Yes</td>
<td>Except that §63.8(f)(1)-(5) only applies as specified in §63.6645.</td>
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<tr>
<td>§63.8(f)(6)</td>
<td>Alternative to relative accuracy test</td>
<td>Yes</td>
<td>Except that §63.8(f)(6) only applies as specified in §63.6645.</td>
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<tr>
<td>§63.8(g)</td>
<td>Data reduction</td>
<td>Yes</td>
<td>Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.</td>
</tr>
<tr>
<td>§63.9(a)</td>
<td>Applicability and State delegation of notification requirements</td>
<td>Yes.</td>
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</tr>
<tr>
<td>§63.9(b)(1)-(5)</td>
<td>Initial notifications</td>
<td>Yes</td>
<td>Except that §63.9(b)(3) is reserved.</td>
</tr>
<tr>
<td>§63.9(c)</td>
<td>Request for compliance extension</td>
<td>Yes</td>
<td>Except that §63.9(c) only applies as specified in §63.6645.</td>
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<tr>
<td>§63.9(d)</td>
<td>Notification of special compliance requirements for new sources</td>
<td>Yes</td>
<td>Except that §63.9(d) only applies as specified in §63.6645.</td>
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<tr>
<td>§63.9(e)</td>
<td>Notification of performance test</td>
<td>Yes</td>
<td>Except that §63.9(e) only applies as specified in §63.6645.</td>
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<tr>
<td>§63.9(f)</td>
<td>Notification of visible emission (VE)/opacity test</td>
<td>No</td>
<td>Subpart ZZZZ does not contain opacity or VE standards.</td>
</tr>
<tr>
<td>§63.9(g)(1)</td>
<td>Notification of performance evaluation</td>
<td>Yes</td>
<td>Except that §63.9(g) only applies as specified in §63.6645.</td>
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<tr>
<td>§63.9(g)(2)</td>
<td>Notification of use of COMS data</td>
<td>No</td>
<td>Subpart ZZZZ does not contain opacity or VE standards.</td>
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<tr>
<td>§63.9(g)(3)</td>
<td>Notification that criterion for alternative to RATA is exceeded</td>
<td>Yes</td>
<td>If alternative is in use.</td>
</tr>
<tr>
<td>§63.9(h)(1)-(6)</td>
<td>Notification of compliance status</td>
<td>Yes</td>
<td>Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.</td>
</tr>
<tr>
<td>§63.9(i)</td>
<td>Adjustment of submittal deadlines</td>
<td>Yes.</td>
<td></td>
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<td>§63.9(j)</td>
<td>Change in previous information</td>
<td>Yes</td>
<td></td>
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<td>General provisions citation</td>
<td>Subject of citation</td>
<td>Applies to subpart</td>
<td>Explanation</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------------------------------------------------</td>
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<tr>
<td>§63.10(a)</td>
<td>Administrative provisions for recordkeeping/reporting</td>
<td>Yes</td>
<td></td>
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<tr>
<td>§63.10(b)(1)</td>
<td>Record retention</td>
<td>Yes</td>
<td></td>
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<tr>
<td>§63.10(b)(2)(i)-(v)</td>
<td>Records related to SSM</td>
<td>No</td>
<td></td>
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<tr>
<td>§63.10(b)(2)(vi)-(xi)</td>
<td>Records</td>
<td>Yes</td>
<td></td>
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<tr>
<td>§63.10(b)(2)(xii)</td>
<td>Record when under waiver</td>
<td>Yes</td>
<td>For CO standard if using RATA alternative.</td>
</tr>
<tr>
<td>§63.10(b)(2)(xiii)</td>
<td>Records when using alternative to RATA</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(2)(xiv)</td>
<td>Records of supporting documentation</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.10(b)(3)</td>
<td>Records of applicability determination</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.10(c)</td>
<td>Additional records for sources using CEMS</td>
<td>Yes</td>
<td>Except that §63.10(c)(2)-(4) and (9) are reserved.</td>
</tr>
<tr>
<td>§63.10(d)(1)</td>
<td>General reporting requirements</td>
<td>Yes</td>
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<td>§63.10(d)(2)</td>
<td>Report of performance test results</td>
<td>Yes</td>
<td></td>
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<tr>
<td>§63.10(d)(3)</td>
<td>Reporting opacity or VE observations</td>
<td>No</td>
<td>Subpart ZZZZ does not contain opacity or VE standards.</td>
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<tr>
<td>§63.10(d)(4)</td>
<td>Progress reports</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.10(d)(5)</td>
<td>Startup, shutdown, and malfunction reports</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>§63.10(e)(1) and (2)(i)</td>
<td>Additional CMS Reports</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.10(e)(2)(ii)</td>
<td>COMS-related report</td>
<td>No</td>
<td>Subpart ZZZZ does not require COMS.</td>
</tr>
<tr>
<td>§63.10(e)(3)</td>
<td>Excess emission and parameter exceedances reports</td>
<td>Yes</td>
<td>Except that §63.10(e)(3)(i) (C) is reserved.</td>
</tr>
<tr>
<td>§63.10(e)(4)</td>
<td>Reporting COMS data</td>
<td>No</td>
<td>Subpart ZZZZ does not require COMS.</td>
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<tr>
<td>§63.10(f)</td>
<td>Waiver for recordkeeping/reporting</td>
<td>Yes</td>
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</tr>
<tr>
<td>§63.11</td>
<td>Flares</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>§63.12</td>
<td>State authority and delegations</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>§63.13</td>
<td>Addresses</td>
<td>Yes</td>
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<tr>
<td>§63.14</td>
<td>Incorporation by reference</td>
<td>Yes</td>
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<tr>
<td>§63.15</td>
<td>Availability of information</td>
<td>Yes</td>
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</tbody>
</table>

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).

<table>
<thead>
<tr>
<th>Analyte</th>
<th>CAS No.</th>
<th>Sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide (CO)</td>
<td>630-08-0</td>
<td>Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.</td>
</tr>
<tr>
<td>Oxygen (O2)</td>
<td>7782-44-7</td>
<td></td>
</tr>
</tbody>
</table>

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:
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.
3.12 Performance-Established Configuration. The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

4.0 Interferences.

When present in sufficient concentrations, NO and NO\textsubscript{2} are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

5.0 Safety. [Reserved]

6.0 Equipment and Supplies.

6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

6.2 Measurement System Components.

6.2.1 Sample Probe. A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

6.2.2 Sample Line. Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

6.2.3 Calibration Assembly (optional). A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

6.2.4 Particulate Filter (optional). Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

6.2.5 Sample Pump. A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.8 Sample Flow Rate Monitoring. An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

6.2.9 Sample Gas Manifold (optional). A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.10 EC cell. A device containing one or more EC cells to determine the CO and O\textsubscript{2} concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

6.2.11 Data Recorder. A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O\textsubscript{2}; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.
6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 Reagents and Standards. What calibration gases are needed?

7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O₂. 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 O₂) is acceptable for calibration of the O₂ cell. If needed, any lower percentage O₂ calibration gas must be a mixture of O₂ 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 O₂ 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 O₂. When the average exhaust gas O₂ readings are above 6 percent, you may use dry ambient air (20.9 percent O₂) for the up-scale O₂ 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 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)
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 O2 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,
whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must
conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

*Example:* A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean
is greater than ±2 percent or ±1 ppm (the default criteria). For example, if the mean = 30 ppm, single readings of
below 29 ppm and above 31 ppm are disallowed.

13.2 Interference Check. Before the initial use of the EC cell and interference gas scrubber in the field, and semi-
annually thereafter, challenge the interference gas scrubber with NO and 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 NO₂ 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,

(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

(3) “ICAC Test Protocol for Periodic Monitoring”, EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean
Air Companies, September 8, 1999.

Table 1: Appendix A—Sampling Run Data.

<table>
<thead>
<tr>
<th>Run Type:</th>
<th>Pre-Sample Calibration</th>
<th>Stack Gas Sample</th>
<th>Post-Sample Cal. Check</th>
<th>Repeatability Check</th>
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<tr>
<td>Run #</td>
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<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Time</td>
<td></td>
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<tr>
<td>Gas</td>
<td>O₂</td>
<td>CO</td>
<td>O₂</td>
<td>CO</td>
</tr>
<tr>
<td>Sample Cond. Phase</td>
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<tr>
<td>Measurement Data Phase</td>
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<tr>
<td>Mean</td>
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<td>Refresh Phase</td>
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</tr>
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</table>

[78 FR 6721, Jan. 30, 2013]
What This Subpart Covers

§ 63.11110 What is the purpose of this subpart?

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

§ 63.11111 Am I subject to the requirements in this subpart?

(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

(b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in § 63.11116.

(c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in § 63.11117.

(d) If your GDF has a monthly throughput of 100,000 gallons of gasoline or more, you must comply with the requirements in § 63.11118.

(e) An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in § 63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in § 63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years.

(f) If you are an owner or operator of affected sources, as defined in paragraph (a) of this section, you are not required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you must still apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR 71.3(a) and (b).
(g) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.

(h) Monthly throughput is the total volume of gasoline loaded into, or dispensed from, all the gasoline storage tanks located at a single affected GDF. If an area source has two or more GDF at separate locations within the area source, each GDF is treated as a separate affected source.

(i) If your affected source’s throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.

(j) The dispensing of gasoline from a fixed gasoline storage tank at a GDF into a portable gasoline tank for the on-site delivery and subsequent dispensing of the gasoline into the fuel tank of a motor vehicle or other gasoline-fueled engine or equipment used within the area source is only subject to § 63.11116 of this subpart.

(k) For any affected source subject to the provisions of this subpart and another Federal rule, you may elect to comply only with the more stringent provisions of the applicable subparts. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the affected source and provisions with which you will comply in your Notification of Compliance Status required under § 63.11124. You also must demonstrate in your Notification of Compliance Status that each provision with which you will comply is at least as stringent as the otherwise applicable requirements in this subpart. You are responsible for making accurate determinations concerning the more stringent provisions, and noncompliance with this rule is not excused if it is later determined that your determination was in error, and, as a result, you are violating this subpart. Compliance with this rule is your responsibility and the Notification of Compliance Status does not alter or affect that responsibility.


§ 63.11112 What parts of my affected source does this subpart cover?

(a) The emission sources to which this subpart applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in § 63.11111. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this subpart.

(b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in § 63.11111 at the time you commenced operation.

(c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in § 63.2.

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

§ 63.11113 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section, except as specified in paragraph (d) of this section.

(1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.

(2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the standards in this subpart no later than January 10, 2011.
(c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the monthly throughput, as specified in § 63.11111(c) or § 63.11111(d), you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.

(d) If you have a new or reconstructed affected source and you are complying with Table 1 to this subpart, you must comply according to paragraphs (d)(1) and (2) of this section.

(1) If you start up your affected source from November 9, 2006 to September 23, 2008, you must comply no later than September 23, 2008.

(2) If you start up your affected source after September 23, 2008, you must comply upon startup of your affected source.

(e) The initial compliance demonstration test required under § 63.11120(a)(1) and (2) must be conducted as specified in paragraphs (e)(1) and (2) of this section.

(1) If you have a new or reconstructed affected source, you must conduct the initial compliance test upon installation of the complete vapor balance system.

(2) If you have an existing affected source, you must conduct the initial compliance test as specified in paragraphs (e)(2)(i) or (e)(2)(ii) of this section.

(i) For vapor balance systems installed on or before December 15, 2009, you must test no later than 180 days after the applicable compliance date specified in paragraphs (b) or (c) of this section.

(ii) For vapor balance systems installed after December 15, 2009, you must test upon installation of the complete vapor balance system.

(f) If your GDF is subject to the control requirements in this subpart only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must comply with the standards in this subpart as specified in paragraphs (f)(1) or (f)(2) of this section.

(1) If your GDF is an existing facility, you must comply by January 24, 2014.

(2) If your GDF is a new or reconstructed facility, you must comply by the dates specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) If you start up your GDF after December 15, 2009, but before January 24, 2011, you must comply no later than January 24, 2011.

(ii) If you start up your GDF after January 24, 2011, you must comply upon startup of your GDF.


Emission Limitations and Management Practices

§ 63.11115 What are my general duties to minimize emissions?

Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

(a) You must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review
of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) You must keep applicable records and submit reports as specified in § 63.11125(d) and § 63.11126(b).

[76 FR 4182, Jan. 24, 2011]

§ 63.11116  Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;

(2) Clean up spills as expeditiously as practicable;

(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(b) You are not required to submit notifications or reports as specified in § 63.11125, § 63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(c) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11113.

(d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.


§ 63.11117  Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.

(a) You must comply with the requirements in section § 63.11116(a).

(b) Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in § 63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.

(2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

(3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.

(c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section, but must comply only with all of the requirements in § 63.11116.
(d) You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(e) You must submit the applicable notifications as required under § 63.11124(a).

(f) You must comply with the requirements of this subpart by the applicable dates contained in § 63.11113.


§ 63.11118 Requirements for facilities with monthly throughput of 100,000 gallons of gasoline or more.

(a) You must comply with the requirements in §§ 63.11116(a) and 63.11117(b).

(b) Except as provided in paragraph (c) of this section, you must meet the requirements in either paragraph (b)(1) or paragraph (b)(2) of this section.

(1) Each management practice in Table 1 to this subpart that applies to your GDF.

(2) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(2)(i) and (ii) of this section, you will be deemed in compliance with this subsection.

(i) You operate a vapor balance system at your GDF that meets the requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(c) The emission sources listed in paragraphs (c)(1) through (3) of this section are not required to comply with the control requirements in paragraph (b) of this section, but must comply with the requirements in § 63.11117.

(1) Gasoline storage tanks with a capacity of less than 250 gallons that are constructed after January 10, 2008.

(2) Gasoline storage tanks with a capacity of less than 2,000 gallons that were constructed before January 10, 2008.

(3) Gasoline storage tanks equipped with floating roofs, or the equivalent.

(d) Cargo tanks unloading at GDF must comply with the management practices in Table 2 to this subpart.

(e) You must comply with the applicable testing requirements contained in § 63.11120.

(f) You must submit the applicable notifications as required under § 63.11124.

(g) You must keep records and submit reports as specified in §§ 63.11125 and 63.11126.

(h) You must comply with the requirements of this subpart by the applicable dates contained in § 63.11113.

Testing and Monitoring Requirements

§ 63.11120 What testing and monitoring requirements must I meet?

(a) Each owner or operator, at the time of installation, as specified in § 63.11113(e), of a vapor balance system required under § 63.11118(b)(1), and every 3 years thereafter, must comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to this subpart, for pressure-vacuum vent valves installed on your gasoline storage tanks using the test methods identified in paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see § 63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).

(2) You must demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to this subpart for your vapor balance system by conducting a static pressure test on your gasoline storage tanks using the test methods identified in paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.


(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).


(b) Each owner or operator choosing, under the provisions of § 63.6(g), to use a vapor balance system other than that described in Table 1 to this subpart must demonstrate to the Administrator or delegated authority under paragraph § 63.11131(a) of this subpart, the equivalency of their vapor balance system to that described in Table 1 to this subpart using the procedures specified in paragraphs (b)(1) through (3) of this section.

(1) You must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP-201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see § 63.14).

(2) You must, during the initial performance test required under paragraph (b)(1) of this section, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to this subpart and for the static pressure performance requirement in item 1(h) of Table 1 to this subpart.

(3) You must comply with the testing requirements specified in paragraph (a) of this section.

(c) Conduct of performance tests. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(d) Owners and operators of gasoline cargo tanks subject to the provisions of Table 2 to this subpart must conduct annual certification testing according to the vapor tightness testing requirements found in § 63.11092(f).
Notifications, Records, and Reports

§ 63.11124 What notifications must I submit and when?

(a) Each owner or operator subject to the control requirements in § 63.11117 must comply with paragraphs (a)(1) through (3) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in § 63.11117, unless you meet the requirements in paragraph (a)(3) of this section. If your affected source is subject to the control requirements in § 63.11117 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (a)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in § 63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of § 63.11117 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, within 60 days of the applicable compliance date specified in § 63.11113, unless you meet the requirements in paragraph (a)(3) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facilities' monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (a)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (a)(1) of this section.

(3) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in § 63.11117(b), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.

(b) Each owner or operator subject to the control requirements in § 63.11118 must comply with paragraphs (b)(1) through (5) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in § 63.11118. If your affected source is subject to the control requirements in § 63.11118 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (b)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in § 63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of § 63.11118 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, in accordance with the schedule specified in § 63.9(h). The Notification of
Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facility's throughput is determined based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (b)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (b)(1) of this section.

(3) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(3)(i) and (ii) of this section, you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (b)(1) or paragraph (b)(2) of this subsection.

(i) You operate a vapor balance system at your gasoline dispensing facility that meets the requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(4) You must submit a Notification of Performance Test, as specified in § 63.9(e), prior to initiating testing required by § 63.11120(a) and (b).

(5) You must submit additional notifications specified in § 63.9, as applicable.


§ 63.11125  What are my recordkeeping requirements?

(a) Each owner or operator subject to the management practices in § 63.11118 must keep records of all tests performed under § 63.11120(a) and (b).

(b) Records required under paragraph (a) of this section shall be kept for a period of 5 years and shall be made available for inspection by the Administrator's delegated representatives during the course of a site visit.

(c) Each owner or operator of a gasoline cargo tank subject to the management practices in Table 2 to this subpart must keep records documenting vapor tightness testing for a period of 5 years. Documentation must include each of the items specified in § 63.11094(b)(2)(i) through (viii). Records of vapor tightness testing must be retained as specified in either paragraph (c)(1) or paragraph (c)(2) of this section.

(1) The owner or operator must keep all vapor tightness testing records with the cargo tank.

(2) As an alternative to keeping all records with the cargo tank, the owner or operator may comply with the requirements of paragraphs (c)(2)(i) and (ii) of this section.

(i) The owner or operator may keep records of only the most recent vapor tightness test with the cargo tank, and keep records for the previous 4 years at their office or another central location.

(ii) Vapor tightness testing records that are kept at a location other than with the cargo tank must be instantly available (e.g., via e-mail or facsimile) to the Administrator's delegated representative during the course of a site visit or within a mutually agreeable time frame. Such records must be an exact duplicate image of the original paper copy record with certifying signatures.
(d) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (d)(1) and (2) of this section.

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

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.


§63.11126 What are my reporting requirements?

(a) Each owner or operator subject to the management practices in §63.11118 shall report to the Administrator the results of all volumetric efficiency tests required under §63.11120(b). Reports submitted under this paragraph must be submitted within 180 days of the completion of the performance testing.

(b) Each owner or operator of an affected source under this subpart shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.

[76 FR 4183, Jan. 24, 2011]

Other Requirements and Information

§63.11130 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions apply to you.

§63.11131 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as the applicable State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or tribal agency.

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

(c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (3) of this section.

(1) Approval of alternatives to the requirements in §§63.11116 through 63.11118 and 63.11120.

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

(3) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.
§ 63.11132 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), or in subparts A and BBBBBB of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

_Dual-point vapor balance system_ means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

_Gasoline_ means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.

_Gasoline cargo tank_ means a delivery tank truck or railcar which is loading or unloading gasoline, or which has loaded or unloaded gasoline on the immediately previous load.

_Gasoline dispensing facility (GDF)_ means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

_Monthly throughput_ means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

_Motor vehicle_ means any self-propelled vehicle designed for transporting persons or property on a street or highway.

_Nonroad engine_ means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

_Nonroad vehicle_ means a vehicle that is powered by a nonroad engine, and that is not a motor vehicle or a vehicle used solely for competition.

_Submerged filling_ means, for the purposes of this subpart, the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in § 63.11117(b) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

_Vapor balance system_ means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

_Vapor-tight_ means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

_Vapor-tight gasoline cargo tank_ means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in § 63.11092(f) of this part.

## Table 1 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More

<table>
<thead>
<tr>
<th>If you own or operate</th>
<th>Then you must</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> A new, reconstructed, or existing GDF subject to § 63.11118</td>
<td>Install and operate a vapor balance system on your gasoline storage tanks that meets the design criteria in paragraphs (a) through (h).</td>
</tr>
<tr>
<td>(a) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnect.</td>
<td></td>
</tr>
<tr>
<td>(b) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor-tight, as defined in § 63.11132.</td>
<td></td>
</tr>
<tr>
<td>(c) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.</td>
<td></td>
</tr>
<tr>
<td>(d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.</td>
<td></td>
</tr>
<tr>
<td>(e) If a separate gauge well from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in § 63.11117(b).</td>
<td></td>
</tr>
<tr>
<td>(f) Liquid fill connections for all systems shall be equipped with vapor-tight caps.</td>
<td></td>
</tr>
<tr>
<td>(g) Pressure/vacuum (PV) vent valves shall be installed on the storage tank vent pipes. The pressure specifications for PV vent valves shall be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.</td>
<td></td>
</tr>
<tr>
<td>(h) The vapor balance system shall be capable of meeting the static pressure performance requirement of the following equation:</td>
<td></td>
</tr>
<tr>
<td>[ Pf = 2e^{−500.887/v} ]</td>
<td></td>
</tr>
<tr>
<td>Where:</td>
<td></td>
</tr>
<tr>
<td>( Pf ) = Minimum allowable final pressure, inches of water.</td>
<td></td>
</tr>
<tr>
<td>( v ) = Total ullage affected by the test, gallons.</td>
<td></td>
</tr>
<tr>
<td>( e ) = Dimensionless constant equal to approximately 2.718.</td>
<td></td>
</tr>
<tr>
<td>( 2 ) = The initial pressure, inches water.</td>
<td></td>
</tr>
</tbody>
</table>

| 2. A new or reconstructed GDF, or any storage tank(s) constructed after November 9, 2006, at an existing affected facility subject to § 63.11118 | Equip your gasoline storage tanks with a dual-point vapor balance system, as defined in § 63.11132, and comply with the requirements of item 1 in this Table. |

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1 The management practices specified in this Table are not applicable if you are complying with the requirements in § 63.11118(b)(2), except that if you are complying with the requirements in § 63.11118(b)(2)(i)(B), you must operate using management practices at least as stringent as those listed in this Table.

Table 2 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Cargo Tanks Unloading at Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More

<table>
<thead>
<tr>
<th>If you own or operate</th>
<th>Then you must</th>
</tr>
</thead>
<tbody>
<tr>
<td>A gasoline cargo tank</td>
<td>Not unload gasoline into a storage tank at a GDF subject to the control requirements in this subpart unless the following conditions are met:</td>
</tr>
<tr>
<td></td>
<td>(i) All hoses in the vapor balance system are properly connected;</td>
</tr>
<tr>
<td></td>
<td>(ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect;</td>
</tr>
<tr>
<td></td>
<td>(iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight;</td>
</tr>
<tr>
<td></td>
<td>(iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and</td>
</tr>
<tr>
<td></td>
<td>(v) All hatches on the tank truck are closed and securely fastened.</td>
</tr>
<tr>
<td></td>
<td>(vi) The filling of storage tanks at GDF shall be limited to unloading from vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 shall be carried with the cargo tank, as specified in § 63.11125(c).</td>
</tr>
</tbody>
</table>


Table 3 to Subpart CCCCCC of Part 63—Applicability of General Provisions

<table>
<thead>
<tr>
<th>Citation</th>
<th>Subject</th>
<th>Brief description</th>
<th>Applies to subpart CCCCCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 63.1</td>
<td>Applicability</td>
<td>Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications</td>
<td>Yes, specific requirements given in § 63.11111.</td>
</tr>
<tr>
<td>§ 63.1(c)(2)</td>
<td>Title V Permit</td>
<td>Requirements for obtaining a title V permit from the applicable permitting authority</td>
<td>Yes, § 63.11111(f) of subpart CCCCCC exempts identified area sources from the obligation to obtain title V operating permits.</td>
</tr>
<tr>
<td>§ 63.2</td>
<td>Definitions</td>
<td>Definitions for part 63 standards</td>
<td>Yes, additional definitions in § 63.11132.</td>
</tr>
<tr>
<td>§ 63.3</td>
<td>Units and Abbreviations</td>
<td>Units and abbreviations for part 63 standards</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.4</td>
<td>Prohibited Activities and Circumvention</td>
<td>Prohibited activities; Circumvention, severability</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.5</td>
<td>Construction/Reconstruction</td>
<td>Applicability; applications; approvals</td>
<td>Yes, except that these notifications are not required for facilities subject to § 63.11116</td>
</tr>
<tr>
<td>§ 63.6(a)</td>
<td>Compliance with Standards/Operation &amp; Maintenance—Applicability</td>
<td>General Provisions apply unless compliance extension; General Provisions apply to area sources that become major</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
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</tr>
<tr>
<td>§ 63.6(b)(1)-(4)</td>
<td>Compliance Dates for New and Reconstructed Sources</td>
<td>Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(b)(5)</td>
<td>Notification</td>
<td>Must notify if commenced construction or reconstruction after proposal</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(b)(6)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(b)(7)</td>
<td>Compliance Dates for New and Reconstructed Area Sources That Become Major</td>
<td>Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(c)(1)-(2)</td>
<td>Compliance Dates for Existing Sources</td>
<td>Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension</td>
<td>No. § 63.11113 specifies the compliance dates.</td>
</tr>
<tr>
<td>§ 63.6(c)(3)-(4)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(c)(5)</td>
<td>Compliance Dates for Existing Area Sources That Become Major</td>
<td>Area sources That become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(d)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>63.6(e)(1)(i)</td>
<td>General duty to minimize emissions</td>
<td>Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met.</td>
<td>No. See § 63.11115 for general duty requirement.</td>
</tr>
<tr>
<td>63.6(e)(1)(ii)</td>
<td>Requirement to correct malfunctions ASAP</td>
<td>Owner or operator must correct malfunctions as soon as possible.</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(e)(2)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(e)(3)</td>
<td>Startup, Shutdown, and Malfunction (SSM) Plan</td>
<td>Requirement for SSM plan; content of SSM plan; actions during SSM</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(f)(1)</td>
<td>Compliance Except During SSM</td>
<td>You must comply with emission standards at all times except during SSM</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(f)(2)-(3)</td>
<td>Methods for Determining Compliance</td>
<td>Compliance based on performance test, operation and maintenance plans, records, inspection</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(g)(1)-(3)</td>
<td>Alternative Standard</td>
<td>Procedures for getting an alternative standard</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(h)(1)</td>
<td>Compliance with Opacity/Visible Emission (VE) Standards</td>
<td>You must comply with opacity/VE standards at all times except during SSM</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(2)(i)</td>
<td>Determining Compliance with Opacity/VE Standards</td>
<td>If standard does not State test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(2)(ii)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Citation</th>
<th>Subject</th>
<th>Brief description</th>
<th>Applies to subpart CCCCCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 63.6(h)(2)(iii)</td>
<td>Using Previous Tests To Demonstrate Compliance WithOpacity/VE Standards</td>
<td>Criteria for when previous opacity/VE testing can be used to show compliance with this subpart</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(3)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.6(h)(4)</td>
<td>Notification of Opacity/VE Observation Date</td>
<td>Must notify Administrator of anticipated date of observation</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(5)(i), (iii)-(v)</td>
<td>Conducting Opacity/VE Observations</td>
<td>Dates and schedule for conducting opacity/VE observations</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(5)(ii)</td>
<td>Opacity Test Duration and Averaging Times</td>
<td>Must have at least 3 hours of observation with 30 6-minute averages</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(6)</td>
<td>Records of Conditions During Opacity/VE Observations</td>
<td>Must keep records available and allow Administrator to inspect</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(7)(i)</td>
<td>Report Continuous Opacity Monitoring System (COMS) Monitoring Data From Performance Test</td>
<td>Must submit COMS data with other performance test data</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(7)(ii)</td>
<td>Using COMS Instead of EPA Method 9</td>
<td>Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(7)(iii)</td>
<td>Averaging Time for COMS During Performance Test</td>
<td>To determine compliance, must reduce COMS data to 6-minute averages</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(7)(iv)</td>
<td>COMS Requirements</td>
<td>Owner/operator must demonstrate that COMS performance evaluations are conducted according to § 63.8(e); COMS are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d)</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(7)(v)</td>
<td>Determining Compliance with Opacity/VE Standards</td>
<td>COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(8)</td>
<td>Determining Compliance with Opacity/VE Standards</td>
<td>Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(h)(9)</td>
<td>Adjusted Opacity Standard</td>
<td>Procedures for Administrator to adjust an opacity standard</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.6(i)(1)-(14)</td>
<td>Compliance Extension</td>
<td>Procedures and criteria for Administrator to grant compliance extension</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.6(j)</td>
<td>Presidential Compliance Exemption</td>
<td>President may exempt any source from requirement to comply with this subpart</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
</tr>
<tr>
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<td>----------------------------------------------</td>
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<td>--------------------------</td>
</tr>
<tr>
<td>§ 63.7(a)(2)</td>
<td>Performance Test Dates</td>
<td>Dates for conducting initial performance testing; must conduct 180 days after compliance date</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(a)(3)</td>
<td>CAA Section 114 Authority</td>
<td>Administrator may require a performance test under CAA section 114 at any time</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(b)(1)</td>
<td>Notification of Performance Test</td>
<td>Must notify Administrator 60 days before the test</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(b)(2)</td>
<td>Notification of Re-scheduling</td>
<td>If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(c)</td>
<td>Quality Assurance (QA)/Test Plan</td>
<td>Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(d)</td>
<td>Testing Facilities</td>
<td>Requirements for testing facilities</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(e)(1)</td>
<td>Conditions for Conducting Performance Tests</td>
<td>Performance test must be conducted under representative conditions</td>
<td>No, § 63.11120(c) specifies conditions for conducting performance tests.</td>
</tr>
<tr>
<td>§ 63.7(e)(2)</td>
<td>Conditions for Conducting Performance Tests</td>
<td>Must conduct according to this subpart and EPA test methods unless Administrator approves alternative</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(e)(3)</td>
<td>Test Run Duration</td>
<td>Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(f)</td>
<td>Alternative Test Method</td>
<td>Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(g)</td>
<td>Performance Test Data Analysis</td>
<td>Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.7(h)</td>
<td>Waiver of Tests</td>
<td>Procedures for Administrator to waive performance test</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(a)(1)</td>
<td>Applicability of Monitoring Requirements</td>
<td>Subject to all monitoring requirements in standard</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(a)(2)</td>
<td>Performance Specifications</td>
<td>Performance Specifications in appendix B of 40 CFR part 60 apply</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(a)(3)</td>
<td>[Reserved]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>§ 63.8(a)(4)</td>
<td>Monitoring of Flares</td>
<td>Monitoring requirements for flares in § 63.11 apply</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.8(b)(1)</td>
<td>Monitoring</td>
<td>Must conduct monitoring according to standard unless Administrator approves alternative</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>§ 63.8(b)(2)-(3)</td>
<td>Multiple Effluents and Multiple Monitoring Systems</td>
<td>Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(c)(1)</td>
<td>Monitoring System Operation and Maintenance</td>
<td>Maintain monitoring system in a manner consistent with good air pollution control practices</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(c)(1)(i)-(iii)</td>
<td>Operation and Maintenance of Continuous Monitoring Systems (CMS)</td>
<td>Must maintain and operate each CMS as specified in § 63.6(e)(1); must keep parts for routine repairs readily available; must develop a written SSM plan for CMS, as specified in § 63.6(e)(3)</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(c)(2)-(8)</td>
<td>CMS Requirements</td>
<td>Must install to get representative emission or parameter measurements; must verify operational status before or at performance test</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(d)</td>
<td>CMS Quality Control</td>
<td>Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(e)</td>
<td>CMS Performance Evaluation</td>
<td>Notification, performance evaluation test plan, reports</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(f)(1)-(5)</td>
<td>Alternative Monitoring Method</td>
<td>Procedures for Administrator to approve alternative monitoring</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(f)(6)</td>
<td>Alternative to Relative Accuracy Test</td>
<td>Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system (CEMS)</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.8(g)</td>
<td>Data Reduction</td>
<td>COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.9(a)</td>
<td>Notification Requirements</td>
<td>Applicability and State delegation</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(b)(1)-(2), (4)-(5)</td>
<td>Initial Notifications</td>
<td>Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(c)</td>
<td>Request for Compliance Extension</td>
<td>Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate</td>
<td>Yes.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Brief description</td>
<td>Applies to subpart CCCCCC</td>
</tr>
<tr>
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</tr>
<tr>
<td>§ 63.9(d)</td>
<td>Notification of Special Compliance Requirements for New Sources</td>
<td>For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(e)</td>
<td>Notification of Performance Test</td>
<td>Notify Administrator 60 days prior</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(f)</td>
<td>Notification of VE/Opacity Test</td>
<td>Notify Administrator 30 days prior</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.9(g)</td>
<td>Additional Notifications when Using CMS</td>
<td>Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative</td>
<td>Yes, however, there are no opacity standards.</td>
</tr>
<tr>
<td>§ 63.9(h)(1)-(6)</td>
<td>Notification of Compliance Status</td>
<td>Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority</td>
<td>Yes, however, there are no opacity standards.</td>
</tr>
<tr>
<td>§ 63.9(i)</td>
<td>Adjustment of Submittal Deadlines</td>
<td>Procedures for Administrator to approve change when notifications must be submitted</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.9(j)</td>
<td>Change in Previous Information</td>
<td>Must submit within 15 days after the change</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(a)</td>
<td>Recordkeeping/Reporting</td>
<td>Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(1)</td>
<td>Recordkeeping/Reporting</td>
<td>General requirements; keep all records readily available; keep for 5 years</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(i)</td>
<td>Records related to SSM</td>
<td>Recordkeeping of occurrence and duration of startups and shutdowns</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(ii)</td>
<td>Records related to SSM</td>
<td>Recordkeeping of malfunctions</td>
<td>No. See § 63.11125(d) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(iii)</td>
<td>Maintenance records</td>
<td>Recordkeeping of maintenance on air pollution control and monitoring equipment</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(iv)</td>
<td>Records Related to SSM</td>
<td>Actions taken to minimize emissions during SSM</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(v)</td>
<td>Records Related to SSM</td>
<td>Actions taken to minimize emissions during SSM</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(vi)-(xi)</td>
<td>CMS Records</td>
<td>Malfunctions, inoperative, out-of-control periods</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(xii)</td>
<td>Records</td>
<td>Records when under waiver</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(xiii)</td>
<td>Records</td>
<td>Records when using alternative to relative accuracy test</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(2)(xiv)</td>
<td>Records</td>
<td>All documentation supporting Initial Notification and Notification of Compliance Status</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(b)(3)</td>
<td>Records</td>
<td>Applicability determinations</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.10(c)</td>
<td>Records</td>
<td>Additional records for CMS</td>
<td>No.</td>
</tr>
</tbody>
</table>
### Citation | Subject | Brief description | Applies to subpart CCCCCC
--- | --- | --- | ---
§ 63.10(d)(1) | General Reporting Requirements | Requirement to report | Yes.  
| § 63.10(d)(2) | Report of Performance Test Results | When to submit to Federal or State authority | Yes.  
| § 63.10(d)(3) | Reporting Opacity or VE Observations | What to report and when | No.  
| § 63.10(d)(4) | Progress Reports | Must submit progress reports on schedule if under compliance extension | Yes.  
| § 63.10(d)(5) | SSM Reports | Contents and submission | No. See § 63.11126(b) for malfunction reporting requirements.  
| § 63.10(e)(1)-(2) | Additional CMS Reports | Must report results for each CEMS on a unit; written copy of CMS performance evaluation; two-three copies of COMS performance evaluation | No.  
| § 63.10(e)(3)(i)-(iii) | Reports | Schedule for reporting excess emissions | No.  
| § 63.10(e)(3)(iv)-(v) | Excess Emissions Reports | Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13) | No.  
| § 63.10(e)(3)(iv)-(v) | Excess Emissions Reports | Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13) | No. § 63.11130(K) specifies excess emission events for this subpart.  
| § 63.10(e)(3)(vi)-(viii) | Excess Emissions Report and Summary Report | Requirements for reporting excess emissions for CMS; requires all of the information in §§ 63.10(c)(5)-(13) and 63.8(c)(7)-(8) | No.  
| § 63.10(e)(4) | Reporting COMS Data | Must submit COMS data with performance test data | No.  
| § 63.10(f) | Waiver for Recordkeeping/Reporting | Procedures for Administrator to waive | Yes.  

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40 CFR 63, Subpart CCCCCC  
Attachment D TV No. 167-40187-00120
<table>
<thead>
<tr>
<th>Citation</th>
<th>Subject</th>
<th>Brief description</th>
<th>Applies to subpart CCCCCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ 63.11(b)</td>
<td>Flares</td>
<td>Requirements for flares</td>
<td>No.</td>
</tr>
<tr>
<td>§ 63.12</td>
<td>Delegation</td>
<td>State authority to enforce standards</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.13</td>
<td>Addresses</td>
<td>Addresses where reports, notifications, and requests are sent</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.14</td>
<td>Incorporations by Reference</td>
<td>Test methods incorporated by reference</td>
<td>Yes.</td>
</tr>
<tr>
<td>§ 63.15</td>
<td>Availability of Information</td>
<td>Public and confidential information</td>
<td>Yes.</td>
</tr>
</tbody>
</table>

Source Description and Location

<table>
<thead>
<tr>
<th>Source Name</th>
<th>Steel Dynamics Heartland, LLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Location</td>
<td>455 West Industrial Drive, Terre Haute, Indiana 47802</td>
</tr>
<tr>
<td>County</td>
<td>Vigo, Linton Township</td>
</tr>
<tr>
<td>SIC Code</td>
<td>3316 (Cold-Rolled Steel Sheet, Strip, and Bars)</td>
</tr>
<tr>
<td>Permit Renewal No.</td>
<td>T167-40187-00120</td>
</tr>
<tr>
<td>Permit Reviewer</td>
<td>Jorge Cirnigliaro</td>
</tr>
</tbody>
</table>

On July 9, 2018, Steel Dynamics Heartland, LLC (formerly CSN, LLC) submitted an application to the Office of Air Quality (OAQ) requesting to renew its operating permit. On June 29, 2018, Steel Dynamics Heartland, LLC purchased this plant from CSN, LLC. OAQ has reviewed the operating permit renewal application from Steel Dynamics Heartland, LLC relating to the operation of a stationary steel processing plant. Steel Dynamics Heartland, LLC was issued its third Part 70 Operating Permit Renewal (T 167-32914-00120) on April 10, 2014.

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T 167-32914-00120 on April 10, 2014. There have been no subsequent approvals issued.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) One (1) Galvanizing Line, identified as GAL-1, constructed in August 1999, with a nominal capacity of 140,000 pounds of steel per hour consisting of the following equipment (Note: a portion of this line may be used as a continuous annealing line instead of galvanizing only):

1. One (1) Galvanizing Line Direct Fire Zone Furnace, identified as GL-02, with a nominal capacity of 45.3 million BTU per hour, fired on natural gas, using low NOx burners for control, and exhausting to stack 002.

2. One (1) Galvanizing Line Radiant Heat Tube Furnace, identified as GL-03, with a nominal capacity of 13.2 million BTU per hour, fired on natural gas, using low NOx burners for control, and exhausting to stack 003.

3. One (1) Galvanizing Line Chromate Spray Dryer Furnace, identified as GL-04, with a nominal capacity of 2.0 million BTU per hour, fired on natural gas, using low NOx burners for control, and exhausting to the building interior.

4. One (1) Galvanizing Line Spray Cleaning section with a brush scrubber and strip rinse, identified as GL-05, utilizing hot alkali solution, using mist elimination for control, and exhausting to stack 006.
(5) One (1) Galvanizing Line Zinc Induction Melting section, identified as GL-06, with a nominal zinc melt capacity of 10,200 pounds per hour, using no control, and exhausting to the building interior.

(6) One (1) Galvanizing Line Temper Mill, identified as GL-07, utilizing a detergent as the rolling fluid, using no control, and exhausting to the building interior.

(7) One (1) Galvanizing Line Electric Induction Dryer, identified as GL-09, with a nominal capacity of 2.0 million BTU per hour.

(8) One (1) Galvanizing Line Chromate Roll Applicator, identified as GL-10, utilizing a nominal of 0.4 pounds per hour of chromic acid.

(b) Three (3) Package Boilers, identified as PB-1, PB-2, and PB-3, constructed in July 1999, with a nominal capacity of 32.7 million BTU per hour each, fired on natural gas, using low NOx burners for control, and exhausting to stacks 005A, 005B, and 005C respectively.

Under NSPS Subpart Dc, Package Boilers PB-1, PB-2, and PB-3 are considered affected sources.

(c) One (1) Pickle Line, identified as PL-1, constructed in July 1999, with a nominal capacity of 300 tons of steel per hour, utilizing Hydrochloric Acid as the pickling liquor, consisting of the following equipment:

(1) Four (4) pickle tanks, identified as pickle tank #1 through pickle tank #4, with a nominal capacity of 5,200 gallons each, using a packed tower wet scrubber (including a mist eliminator pad) identified as ECU-1 for HCl emission control, and exhausting to stack 001.

(2) One (1) five-chamber cascading re-circulating rinse tank, identified as rinse tank #1, with a nominal capacity of 3,800 gallons, using scrubber ECU-1 for control, and exhausting to stack 001.

(3) One (1) Strip Dryer, identified as PL-dryer, with a nominal capacity of 5,900 scfm of air heated in the package boilers, and exhausting inside the building.

(4) Two (2) fresh acid storage tanks, identified as Tank #1 and Tank #2, with a nominal capacity of 24,000 gallons each, using scrubber ECU-1 for control, and exhausting to stack 001.

(5) Four (4) pickle liquor re-circulation tanks, identified as Tank #3 through Tank #6, with a nominal capacity of 12,000 gallons each, using scrubber ECU-1 for control, and exhausting to stack 001.

(6) One (1) spent rinse water storage tank, identified as Tank #9, with a nominal capacity of 12,000 gallons, using scrubber ECU-1 for control, and exhausting to stack 001.

(7) Two (2) spent pickle liquor storage tanks, identified as Tank #7 and #8, with a nominal capacity of 24,000 gallons each, using scrubber ECU-1 for control, and exhausting to stack 001.

(8) One (1) welding operation and four (4) shearing operations to conduct continuous pickling.

(9) One (1) Pickle Line Scale Breaker, controlled by a baghouse, and exhausting to stack 007.
(d) One (1) Batch Annealing system, constructed in 1999, consisting of twelve (12) bases and six (6) batch annealing furnaces. The furnaces are identified as BA-01 through BA-06, with a nominal capacity of 6.0 million BTU per hour each, fired on natural gas but also consuming evaporated oil from the coils being annealed, using low NOx burners for control, and exhausting to the building interior.

(e) One (1) Two Stand Reversing Cold Mill, identified as RCM-1, constructed in January 2000, with a nominal capacity of 400,000 pounds of steel per hour, using a baghouse for control, and exhausting to stack 004.

(f) One (1) Temper Mill, identified as TM-1, constructed in July 1999, with a nominal capacity of 158,000 pounds of steel per hour, using no control and exhausting to the building interior.

Specifically Regulated Insignificant Activities

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

(a) Fugitive emissions from paved/unpaved roads and lots.

(b) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower, including the following: two (2) emergency generators each nominally rated at 1447 BHP (69.7 gallons per hour), installed in 1999.

Under NESHAP Subpart ZZZZ, the two emergency generators are considered existing affected sources.

(c) Three (3) natural gas heaters, installed in 2010, with a nominal rating of 150,000 BTU/hr each.

(d) One (1) pot rig heater on galvanizing line, installed in 1999, with a nominal capacity of 2.5 MMBTU/hr.

(e) Three (3) cleaning section burners on the galvanizing line, with a nominal capacity of 8 MMBtu/hr, each. Two of the burners were installed in 1999. The third burner was installed in 2014. All are fired with natural gas.

(f) Three (3) gasoline generator/welders, all installed in 1999. The generator/welders are nominally rated at 22hp (55,977 BTU/hr), 20hp (50,888 BTU/hr), and 12.75hp (32,441 BTU/hr). The engines associated with the welders are non-road engines.

(g) The following equipment related to manufacturing activities: brazing equipment, cutting torches, soldering equipment, and welding equipment including:

(1) Six (6) Oxy-acetylene torch sets with a nominal cutting rate of approximately 3 ft/min cutting metal with a nominal thickness of approximately 1 ½ inches.

(2) Seven (7) plasma cutters with a nominal cutting rate of approximately 2 ft/min cutting metal with a nominal thickness of approximately 1 inch.

(3) Six (6) plug-in MIG welders with a nominal electrode consumption of 3.0 lbs/hr each.

(4) One (1) plug-in TIG welder with a nominal electrode consumption of 1 lb/hr.

(5) Two (2) plug-in stick welders with a nominal electrode consumption of 1 lbs/hr.

(h) Noncontact cooling tower systems with the following: Natural draft cooling towers not regulated under a NESHAP.
(i) Seven (7) space heating units, with no identification, constructed in August 1999, with a nominal capacity of 6.6 million BTU per hour each, fired on natural gas.

(j) Two (2) cold cleaner degreasers with remote solvent reservoirs.

**Insignificant Activities**

The source also consists of the following insignificant activities:

(a) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

Under NESHAP Subpart CCCCCC, the gasoline fuel transfer dispensing operation is considered an affected source.

(b) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(c) The following VOC and HAP storage containers:

   (1) Ink used to mark products using a stenciling system.

   (2) Cleaner for the stenciling systems.

   (3) Denatured alcohol used for cleaning certain parts of machinery.

(d) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

(e) Machining where an aqueous cutting coolant continuously floods the machining interface. The permittee has two grinders (that work similar to lathes) in the roll shop that grind work rolls. Work rolls are used in the machinery (mainly in the reversing cold mill and temper mill) to process the steel coils.

(f) Rolling oil recovery systems.

(g) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(h) Quenching operations used with heat treating processes.

(i) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(j) Heat exchanger cleaning and repair.

(k) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(l) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(m) A laboratory as defined in 326 IAC 2-7-1(21)(D).
(n) Other activities or categories (potential emissions of: less than 25 pounds per day of CO or NOx; less than 5 pounds per hour or 25 pounds per day of SO2 or PM10; less than 3 pounds per hour or 15 pounds per day of VOC; less than 3.29 pounds per day or 0.6 tons per year for lead or lead compounds):

(1) Trimming operations. No HAPS are emitted; steel is trimmed of the edges and heads/tails of coils using trimming knives and shears.

(2) Waste water treatment - no HAPS are emitted.

(3) One (1) electrostatic oiler on galvanizing line with a nominal capacity of 250 mg/M² treating steel with a gauge thickness of 0.010" to 0.070".

(4) One (1) electrostatic oiler shear on slitter line with a nominal capacity of 250 mg/M² treating steel with a gauge thickness of 0.010" to 0.070". The steel throughput for the slitter is approximately 6000 tons/month.

(5) One (1) electrostatic oiler on temper mill with a nominal capacity of 500 mg/M² treating steel with a gauge thickness of 0.010" to 0.070".

(6) One (1) electrostatic oiler on pickle line with a nominal capacity of 350 mg/M² treating steel with a gauge thickness of 0.050" to 0.250", using no control and exhausting to the building interior.

(o) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAP.
The source has removed the following emission units:

1. One (1) Galvanizing Line Strip Dryer Furnace, identified as GL-01, with a maximum capacity of 2.0 million BTU per hour, fired on natural gas, using low NOx burners for control, and exhausting to the building interior.

2. One (1) Galvanizing Line Chromate Spray section, identified as GL-08, utilizing a maximum of 0.37 pounds per hour of chromic acid, using no control, and exhausting to the building interior.

3. Six (6) bases and three (3) batch annealing furnaces (BA-07 through BA-09) from the Batch Annealing system.

As part of this permitting action, the source requested to add the following existing emission units constructed under the provisions of 326 IAC 2-1.1-3 (Exemptions):

1. One (1) Galvanizing Line Electric Induction Dryer, identified as GL-09, with a nominal capacity of 2.0 million BTU per hour, using strip temperature for control and exhausting to stack 008.

2. One (1) Galvanizing Line Chromate Roll Applicator, identified as GL-10, utilizing a nominal of 0.40 pounds per hour of chromic acid, using no control, and exhausting to the building interior.

3. One (1) Oxy-acetylene torch.

4. One (1) plasma cutter.

5. One (1) plug-in stick welder.

The total potential to emit of the emission units is less than levels specified at 326 IAC 2-1.1-3(e)(1)(A) through (G), and the addition of the emission units did not require the source to transition to a higher operation permit level. Therefore, pursuant to 326 IAC 2-1.1-3(e), the modification approval requirements under 326 IAC 2-7-10.5, including the requirement to submit an application, do not apply to the emission units. See Appendix A of this Technical Support Document for detailed emission calculations.

There are no enforcement actions pending.

See Appendix A of this Technical Support Document for detailed emission calculations.

The source is located in Vigo County (Linton Township).

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>Non-attainment effective October 4, 2013, for the Fayette and Harrison Twp. Better than national standards for the remainder of the county.</td>
</tr>
<tr>
<td>CO</td>
<td>Unclassifiable or attainment effective November 15, 1990.</td>
</tr>
<tr>
<td>O₃</td>
<td>Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.¹</td>
</tr>
<tr>
<td>Pollutant</td>
<td>Designation</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>Unclassifiable or attainment effective April 5, 2005, for the annual PM$_{2.5}$ standard.</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM$_{2.5}$ standard.</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>Unclassifiable effective November 15, 1990.</td>
</tr>
<tr>
<td>NO$_2$</td>
<td>Cannot be classified or better than national standards.</td>
</tr>
<tr>
<td>Pb</td>
<td>Unclassifiable or attainment effective December 31, 2011.</td>
</tr>
</tbody>
</table>

1Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO$_x$) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO$_x$ emissions are considered when evaluating the rule applicability relating to ozone. Vigo 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$_{2.5}$
Vigo County has been classified as attainment for PM$_{2.5}$. Therefore, direct PM$_{2.5}$, SO$_2$, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

Fugitive Emissions

The source includes a stationary steel processing plant and portions of an iron and steel mill.

The batch annealing system, reversing two stand cold mill, and temper mill are considered 1 of 28 listed source categories, nested within the steel processing plant, as specified in 326 IAC 2-2-1(ff)(1), 326 IAC 2-3-2(g), or 326 IAC 2-7-1(22)(B). Therefore, fugitive emissions from the batch annealing system, reversing two stand cold mill, and temper mill are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability for the nested source.

The fugitive emissions of hazardous air pollutants (HAP) are counted toward the determination of Part 70 Permit applicability and source status under Section 112 of the Clean Air Act (CAA).

Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of Utility Air Regulatory Group v. EPA, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court’s decision. U.S. EPA’s guidance states that U.S. EPA will no longer require PSD or Title V permits for sources “previously classified as ‘Major’ based solely on greenhouse gas emissions.”

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is
invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

<table>
<thead>
<tr>
<th>Unrestricted Potential Emissions - Nested Source (ton/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM(^1)</td>
</tr>
<tr>
<td>Total PTE of Nested Source Including Fugitives*</td>
</tr>
<tr>
<td>Title V Major Source Thresholds</td>
</tr>
<tr>
<td>PSD Major Source Thresholds</td>
</tr>
</tbody>
</table>

*Under the Part 70 Permit program (40 CFR 70), PM\(_{10}\) and PM\(_{2.5}\), not particulate matter (PM), are each considered as a "regulated air pollutant."

1PM\(_{2.5}\) listed is direct PM\(_{2.5}\).

2Single highest source-wide HAP: HCl

*Fugitive HAP emissions are always included in the source-wide emissions.

### Unrestricted Potential Emissions - Entire Source (ton/year)

<table>
<thead>
<tr>
<th>Unrestricted Potential Emissions - Entire Source (ton/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM(^1)</td>
</tr>
<tr>
<td>PTE of Nested Source Including Fugitives*</td>
</tr>
<tr>
<td>PTE of non-Nested Source Excluding Fugitives*</td>
</tr>
<tr>
<td>Total PTE of Entire Source</td>
</tr>
<tr>
<td>Title V Major Source Thresholds</td>
</tr>
<tr>
<td>PSD Major Source Thresholds</td>
</tr>
</tbody>
</table>

*Under the Part 70 Permit program (40 CFR 70), PM\(_{10}\) and PM\(_{2.5}\), not particulate matter (PM), are each considered as a "regulated air pollutant."

1PM\(_{2.5}\) listed is direct PM\(_{2.5}\).

2Single highest source-wide HAP: HCl

*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed unrestricted potential emissions of the source.

(a) The potential to emit (as defined in 326 IAC 2-7-1(30)) of PM\(_{10}\), PM\(_{2.5}\), and CO is equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(30)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(30)) of a
combination of HAPs is equal to or greater than twenty-five (25) tons per year. The source will be issued a Part 70 Operating Permit Renewal.

### Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

### Potential to Emit After Issuance

In a letter dated July 12, 2000, US EPA Region V ruled that a source such as Steel Dynamics Heartland, LLC (formerly known as Heartland Steel and CSN, LLC) should be considered as having a nested source when determining PSD applicability. The entire operation is compared to the 250 ton per year threshold for sources that are not in one of the twenty-eight (28) listed source categories. The nested source portion is one of the twenty-eight (28) listed source categories (Iron and Steel Mill Plant category) and therefore the emissions from the nested source are compared to the one hundred (100) tons per year threshold. All operations with a two-digit SIC Code of 33 are considered as part of the nested source. The operations that fall into this SIC Code are: Batch Annealing (SIC 3398); Reversing Cold Rolling Mill (SIC 3316); and the Temper Mill (SIC 3398).

The tables below summarize the potential to emit, reflecting all limits, of the emission units of the entire source and the nested source portion. 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.
<table>
<thead>
<tr>
<th>Potential to Emit of the Nested Source After Issuance of Renewal (ton/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM(^1)</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Total PTE of Nested Source Including Fugitives*</td>
</tr>
<tr>
<td>Title V Major Source Thresholds</td>
</tr>
<tr>
<td>PSD Major Source Thresholds</td>
</tr>
</tbody>
</table>

\(^1\)Under the Part 70 Permit program (40 CFR 70), PM\(_{10}\) and PM\(_{2.5}\), not particulate matter (PM), are each considered as a "regulated air pollutant."
\(^2\)PM\(_{2.5}\) listed is direct PM\(_{2.5}\).
\(^3\)Single highest source-wide HAP: Hexane

*Fugitive HAP emissions are always included in the source-wide emissions.

### Potential to Emit of the Entire Source After Issuance of Renewal (ton/year)

<table>
<thead>
<tr>
<th>PTE of Nested Source Including Fugitives*</th>
<th>91.25</th>
<th>83.67</th>
<th>81.43</th>
<th>0.09</th>
<th>7.73</th>
<th>11.20</th>
<th>12.99</th>
<th>0.28</th>
<th>0.29</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTE of non-Nested Source Excluding Fugitives*</td>
<td>27.26</td>
<td>32.77</td>
<td>32.77</td>
<td>3.53</td>
<td>83.26</td>
<td>25.83</td>
<td>89.96</td>
<td>8.98</td>
<td>10.34</td>
</tr>
<tr>
<td>Total PTE of Entire Source</td>
<td>118.51</td>
<td>116.43</td>
<td>114.20</td>
<td>3.62</td>
<td>90.99</td>
<td>37.03</td>
<td>101.28</td>
<td>8.98</td>
<td>10.64</td>
</tr>
<tr>
<td>Title V Major Source Thresholds</td>
<td>NA</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>PSD Major Source Thresholds</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

\(^1\)Under the Part 70 Permit program (40 CFR 70), PM\(_{10}\) and PM\(_{2.5}\), not particulate matter (PM), are each considered as a "regulated air pollutant."
\(^2\)PM\(_{2.5}\) listed is direct PM\(_{2.5}\).

*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed potential to emit of the entire source after issuance.

The source opted to take limit(s) in order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable to this source and to render the source an area source of HAP emissions under Section 112 of the Clean Air Act (CAA). See Technical Support Document (TSD) State Rule Applicability - Entire Source section, 326 IAC 2-2 (PSD), and 326 IAC 20 (Hazardous Air Pollutants) for more information regarding the limit(s).

(a)  The existing nested source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of 100 tons per year or more, and the existing nested source is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
(b) This existing source is not a major 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).

(c) This source is not a major source of HAP, as defined in 40 CFR 63.2, because HAP 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

Federal rule applicability for this source has been reviewed as follows:

**New Source Performance Standards (NSPS):**

(a) The requirements of the Standards of Performance for Fossil-Fuel-Fired Steam Generators, 40 CFR 60, Subpart D and 326 IAC 12, are not included in the permit for the Package Boilers PB-1, PB-2, and PB-3, because no boiler is a fossil-fuel-fired steam generating unit of more than 73 megawatts (MW) heat input rate (250 million British thermal units per hour (MMBtu/hr)), as set forth in 60.40.

(b) The requirements of the Standards of Performance for Electric Utility Steam Generating Units, 40 CFR 60, Subpart Da and 326 IAC 12, are not included in the permit for the Package Boilers PB-1, PB-2, and PB-3, because no boiler is an electric utility steam generating unit capable of combusting more than 73 megawatts (MW) (250 million British thermal units per hour (MMBtu/hr)) heat input of fossil fuel, as set forth in 60.40Da.

(c) The requirements of the Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db and 326 IAC 12, are not included in the permit for the Package Boilers PB-1, PB-2, and PB-3, because no boiler is a steam generating unit that commenced construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)), as set forth in 60.40b.

(d) The Package Boilers PB-1, PB-2, and PB-3 are subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc and 326 IAC 12, because each boiler is a steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h), as set forth in 60.40c. The units subject to this rule include the following:

Three (3) Package Boilers, identified as PB-1, PB-2, and PB-3, constructed in July 1999, with a nominal capacity of 32.7 million BTU per hour each, fired on natural gas, using low NOx burners for control, and exhausting to stacks 005A, 005B, and 005C respectively.

The three (3) Package Boilers are subject to the following portions of Subpart Dc:

1. 40 CFR 60.40c
2. 40 CFR 60.41c
3. 40 CFR 60.48c (g) and (i)

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the Package Boilers except as otherwise specified in 40 CFR 60, Subpart Dc.
(e) The requirements of the Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978, 40 CFR 60, Subpart K and 326 IAC 12, are not included in the permit for the fuel transfer and dispensing operation, because no fuel storage tank is a storage vessel for petroleum liquids which has a storage capacity greater than 151,412 liters (40,000 gallons), as set forth in 60.110.

(f) The requirements of the Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60, Subpart Ka and 326 IAC 12, are not included in the permit for the fuel transfer and dispensing operation, because no fuel storage tank is a storage vessel with a storage capacity greater than 151,416 liters (40,000 gallons) that is used to store petroleum liquids for which construction is commenced after May 18, 1978, as set forth in 60.110a.

(g) The requirements of the 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 and 326 IAC 12, are not included in the permit for the fuel transfer and dispensing operation, because no fuel storage tank is a storage vessel with a capacity greater than or equal to 75 cubic meters (m³) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984, as set forth in 60.110b.

(h) The requirements of the Standards of Performance for Primary Zinc Smelters, 40 CFR 60, Subpart Q and 326 IAC 12, are not included in the permit for this source because no unit is a facility in primary zinc smelter (roaster and sintering machine) that commenced construction or modification after October 16, 1974, as set forth in 60.170.

(i) The requirements of the Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and on or Before August 17, 1983, 40 CFR 60, Subpart AA and 326 IAC 12, are not included in the permit for this source, because no unit is an affected facility in steel plants that produce carbon, alloy, or specialty steels: electric arc furnaces and dust-handling systems, as set forth in 60.270.

(j) The requirements of the Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983, 40 CFR 60, Subpart Aaa and 326 IAC 12, are not included in the permit for this source, because no unit is an affected facility in steel plants that produce carbon, alloy, or specialty steels: electric arc furnaces, argon-oxygen decarburization vessels, and dust-handling systems, as set forth in 60.270a.

(k) The requirements of the Standards of Performance for Bulk Gasoline Terminals, 40 CFR 60, Subpart XX and 326 IAC 12, are not included in the permit for this source, because no fuel dispensing facility is a bulk gasoline terminal which delivers liquid product into gasoline tank trucks, as set forth in 60.500.

(l) The requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart III and 326 IAC 12, are not included in the permit for this source, because no emergency generator was manufactured after April 1, 2006, as set forth in 60.4200.

40 CFR 60, Subpart III and 326 IAC 12 is not applicable to the gasoline-fired generators/welders because they are not stationary compression ignition (CI) internal combustion engines (ICE), as set forth in 60.4200.
(m) The requirements of the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ and 326 IAC 12, are not included in the permit for the emergency generators, because they are not stationary spark ignition (SI) internal combustion engines (ICE), as set forth in 60.4248.

40 CFR 60, Subpart JJJJ is not included in the permit for the gasoline-fired generators/welders because they are not stationary internal combustion engines as defined in 63.4248.

(n) There are no other New Source Performance Standards (40 CFR Part 60) and 326 IAC 12 included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

On January 25, 2018, the U.S. EPA issued a guidance memorandum titled "Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act." This memorandum withdrew the 1995 policy regarding major sources of hazardous air pollutants (HAP) that became area sources commonly known as "once in, always in" (the OIAI policy). Under the 1995 policy, once a source was classified as a major source of HAP under Section 112 of the Clean Air Act (CAA) and determined to be subject to a major source NESHAP (MACT) the source remained subject to the major source NESHAP for perpetuity.

Effective immediately, the guidance memorandum titled "Reclassification of Major Sources as Area Sources Under Section 112 of the Clean Air Act." withdraws the 1995 policy commonly known as "once in, always in" (the OIAI policy). Based on the 2018 memorandum, a source that was previously classified as a major source of HAP under Section 112 of the Clean Air Act (CAA) and subject to a major source NESHAP, and which is now classified as an area source of HAP under Section 112 of the Clean Air Act (CAA), will no longer be subject to a NESHAP that was applicable to it as a major source of HAP.

A number of environmental organizations filed a March 26, 2018 Petition for Review ("Petition") in the United States Court of Appeals for the District of Columbia Circuit challenging the 2018 memorandum rescinding its Clean Air Act "Once In, Always In" policy.

The 2018 memorandum can be found at the following internet site:

On March 26, 2019, Steel Dynamics Heartland, LLC submitted the following justification to remove the major source NESHAP:

The prior Title V permit classified the facility as a major HAP source due to potential hydrochloric acid (HCl) emissions from the pickle line PL-1. While the prior permit correctly described the existing pickle line PL-1 as equipped with a packed tower wet scrubber for HCl control and the limited summary PTE calculations accounted for this control as limiting potential particulate emissions from the pickle line, they did not account for the presence of this control device for purposes of HCl. The facility's use of the scrubber means that actual HCl emissions have been below major source thresholds as a practical matter. The source believes that this change will allow it to operate as an area HAP source like it always should have been.

As a result of this change in U.S. EPA policy, IDEM, OAQ determined that the following major source NESHAP(s) are no longer applicable to this source and have been removed from the permit:

(1) National Emission Standards for Hazardous Air Pollutants for Steel Pickling--HCl Process Facilities and Hydrochloric Acid Regeneration Plants, 40 CFR 63, Subpart CCC

(2) National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD
IDEM, OAQ has also re-evaluated the applicable requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ since the source will now be subject to the area source requirements.

(a) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers, 40 CFR 63, Subpart Q and 326 IAC 20-4 are not included in the permit for this source, since the cooling towers are not operated with chromium-based water treatment chemicals, as set forth in 63.400.

(b) The requirements of the National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations), 40 CFR 63, Subpart R and 326 IAC 20-10 are not included in the permit for this source, since the gasoline dispensing facility is not a bulk gasoline terminal, as set forth in 63.429.

(c) The requirements of the National Emission Standards for Halogenated Solvent Cleaning, 40 CFR 63, Subpart T and 326 IAC 20-6 are not included in the permit for this source, since each degreaser at this source is not an individual batch vapor, in-line vapor, in-line cold, or batch cold solvent cleaning machine that uses any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), tetrachloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent, as set forth in 63.460.

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants for Steel Pickling--HCl Process Facilities and Hydrochloric Acid Regeneration Plants, 40 CFR 63, Subpart CCC are not included in the permit for this source, since this plant is not a major source for hazardous air pollutants (HAP) or is part of facilities that are major sources for HAP. With this Part 70 Operating Permit Renewal, the source has elected to limit HCl emissions to less than 10 tons per year, rendering the source an area source for HAPs.

(e) The two (2) diesel-fired emergency generators (1,447 BHP each) are subject to the requirements of the 40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (326 IAC 20-82), because they are considered existing stationary reciprocating internal combustion engines (RICE) (construction commenced before June 12, 2006) at an area source of hazardous air pollutants (HAP). Construction of the two (2) diesel-fired emergency generators commenced in 1999.

The two (2) diesel-fired emergency generators are subject the following applicable portions of the NESHAP for existing emergency stationary RICE (construction commenced before June 12, 2006) at an area source of HAP:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585 (a), (c), and (d)
(3) 40 CFR 63.6590(a)(1)(iii) and (iv)
(4) 40 CFR 63.6595(a)(1), and (c)
(5) 40 CFR 63.6603(a)
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625(e)(3), (f), (h), and (i)
(8) 40 CFR 63.6640(a), (e), (f)(1), (f)(2)(i), and (f)(4)
(9) 40 CFR 63.6645(a)(5)
(10) 40 CFR 63.6655
(11) 40 CFR 63.6660
(12) 40 CFR 63.6665
(13) 40 CFR 63.6670
(14) 40 CFR 63.6675
(15) Table 2d (item 4)
(16) Table 6 (item 9)
(17) Table 8

Note: Existing emergency compression ignition (CI) stationary RICE located at an area source of HAP are not subject to numerical CO or formaldehyde emission limitations, but are only subject to work and management practices under Table 2d and Table 6.

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

Based on this evaluation, this source is subject to 40 CFR 63, Subpart ZZZZ. On May 4, 2016, the U.S. Court of Appeals for the D.C. Circuit issued a mandate vacating paragraphs 40 CFR 63.6640(f)(2)(ii) and (iii) of NESHAP Subpart ZZZZ. Therefore, these paragraphs no longer have any legal effect and any engine that is operated for purposes specified in these paragraphs becomes a non-emergency engine and must comply with all applicable requirements for a non-emergency engine.

For additional information, please refer to the USEPA’s Guidance Memo: https://www.epa.gov/sites/production/files/2016-06/documents/ricevacaturguidance041516.pdf

Since the federal rule has not been updated to remove these vacated requirements, the text below shows the vacated language as strikethrough text. At this time, IDEM is not making any changes to the permit’s attachment due to this vacatur. However, the permit will not reference the vacated requirements, as applicable.

40 CFR 63.6640(f)(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.

(f) The requirements of the National Emission Standards for Hazardous Air Pollutants for Institutional, Commercial, and Industrial Boilers and Process Heaters, 40 CFR 63, Subpart DDDDDD and 326 IAC 20-95 are not included in the permit, since none of the three (3) Package Boilers are located at, or are part of, a major source of HAP.
(g) The requirements of the National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries, 40 CFR 63, Subpart EEEEE and 326 IAC 20-92 are not included in the permit, since this source is not an iron and steel foundry that is (or is part of) a major source of hazardous air pollutant (HAP) emissions, as set forth in 63.7681.

(h) The requirements of the National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities, 40 CFR 63, Subpart FFFFF and 326 IAC 20-93 are not included in the permit, since this source is not an integrated iron and steel manufacturing facility that is (or is part of) a major source of hazardous air pollutants (HAP) emissions, as set forth in 63.7781.

(i) The requirements of the National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production, 40 CFR 63, Subpart NNNNN and 326 IAC 20-76 are not included in the permit, since this source is not an HCl production facility that produces a liquid HCl product at a concentration of 30 weight percent or greater during its normal operations and is located at, or is part of, a major source of HAP, as set forth in 63.8985.

(j) The requirements of the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, 40 CFR 63, Subpart CCCCCC are not included in the permit for the gasoline dispensing facility, since it is not an area source of HAP. The unit subject to this rule includes the following:

A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

This emission unit is subject to the following portions of Subpart CCCCCC:

(1) 40 CFR 63.11110
(2) 40 CFR 63.11111(a), (b), (e), (h), (i)
(3) 40 CFR 63.11112(d)
(4) 40 CFR 63.11113(b)
(5) 40 CFR 63.11115
(6) 40 CFR 63.11116
(7) 40 CFR 63.11125(d)
(8) 40 CFR 63.11130
(9) 40 CFR 63.11131
(10) 40 CFR 63.11132
(11) Table 3
The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the gasoline fuel transfer and dispensing operation except as otherwise specified in 40 CFR 63, Subpart CCCCCC.

(n) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ are not included in the permit for the three Package Boilers, since each boiler is not a new or existing industrial, commercial, and institutional boiler within a subcategory, as listed in §63.11200 and defined in §63.11237, located at an area source (63.11194).

(o) The requirements of the National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, 40 CFR 63, Subpart XXXXXX are not included in the permit, since this source does not own or operate an area source that is primarily engaged in the operations in one of the nine source categories listed and that use materials that contain or have the potential to emit metal fabrication or finishing metal HAP (MFHAP), defined to be the compounds of cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form with the exception of lead, as set forth in 63.11514.

(p) There are no other National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included in the permit.

Compliance Assurance Monitoring (CAM):

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:

   (1) has a potential to emit before controls equal to or greater than the major source threshold for the regulated pollutant involved;

   (2) is subject to an emission limitation or standard for that pollutant (or a surrogate thereof); and

   (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

(b) Pursuant to 40 CFR 64.2(b)(1)(i), emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act are exempt from the requirements of CAM. Therefore, an evaluation was not conducted for any emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act.

The following table is used to identify the applicability of CAM to each emission unit and each emission limitation or standard for a specified pollutant based on the criteria specified under 40 CFR 64.2:

<table>
<thead>
<tr>
<th>Emission Unit / Pollutant</th>
<th>Control Device</th>
<th>Applicable Emission Limitation</th>
<th>Uncontrolled PTE (tons/year)</th>
<th>Controlled PTE (tons/year)</th>
<th>CAM Applicable (Y/N)</th>
<th>Large Unit (Y/N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GL-05/PM10/PM2.5</td>
<td>ME</td>
<td>326 IAC 2-2</td>
<td>&lt; 100</td>
<td>--</td>
<td>N¹</td>
<td>N</td>
</tr>
<tr>
<td>GL-05/PM</td>
<td>ME</td>
<td>326 IAC 6.5</td>
<td>&lt; 100</td>
<td>--</td>
<td>N¹</td>
<td>N</td>
</tr>
<tr>
<td>GL-05/PM</td>
<td>ME</td>
<td>326 IAC 2-2</td>
<td>--</td>
<td>--</td>
<td>N²</td>
<td>--</td>
</tr>
</tbody>
</table>
Uncontrolled PTE (tpy) and controlled PTE (tpy) are evaluated against the Major Source Threshold for each pollutant. Major Source Threshold for criteria pollutants (PM10, PM2.5, SO2, NOX, VOC and CO) is 100 tpy, for a single HAP ten (10) tpy, and for total HAPs twenty-five (25) tpy.

Under the Part 70 Permit program (40 CFR 70), PM is not a regulated pollutant.

PM* For limitations under 326 IAC 6-3-2, 326 IAC 6.5, and 326 IAC 6.8, IDEM OAQ uses PM as a surrogate for the regulated air pollutant PM10. Therefore, uncontrolled PTE and controlled PTE reflect the emissions of the regulated air pollutant PM10.

N1 CAM does not apply for PM, PM10, and PM2.5 because the uncontrolled PTE of PM, PM10, and PM2.5 are less than the major source threshold.

N2 Under 326 IAC 2-2, PM is not a surrogate for a regulated air pollutant. Therefore, CAM does not apply to these emission units for the 326 IAC 2-2 PM limitation.

Controls: BH = Baghouse, WS = Wet Scrubber, ME = Mist Elimination, PPFS = Progressive Purification Filter System

Emission units without air pollution controls are not subject to CAM. Therefore, they are not listed.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are applicable to the Pickle Line Scale Breaker and the two (2) Stand Reversing Cold Mill (RCM-1) for PM, PM10, and PM2.5. The RCM-1 is considered a "large unit," for pollutants PM, PM10, and PM2.5 upon start-up. A CAM plan was submitted as part of a previous permit application and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are applicable to the tanks and dryer of the Pickle Line, which are considered as an "other unit," for HCl and Total HAPs upon issuance of the Part 70 Permit Renewal. A CAM plan must be submitted as part of the next Part 70 Operating Permit Renewal application.

### State Rule Applicability - Entire Source

#### 326 IAC 1-6-3 (Preventive Maintenance Plan)
The source is subject to 326 IAC 1-6-3.

#### 326 IAC 1-5-2 (Emergency Reduction Plans)
The source is subject to 326 IAC 1-5-2.
326 IAC 2-2 (PSD)
PSD and Emission Offset applicability is discussed under the Potential to Emit After Issuance section of this document.

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

(a) The PM emissions from the Galvanizing Line Spray Cleaning section identified as GL-05, shall not exceed 2.19 pounds per hour.
(b) The PM$_{10}$ emissions from the Galvanizing Line Spray Cleaning section identified as GL-05, shall not exceed 2.19 pounds per hour.
(c) The PM$_{2.5}$ emissions from the Galvanizing Line Spray Cleaning section identified as GL-05, shall not exceed 2.19 pounds per hour.
(d) The PM emissions from the Pickle Line Breaker Baghouse (stack 007) shall not exceed 2.72 pounds per hour.
(e) The PM$_{10}$ emissions from the Pickle Line Breaker Baghouse (stack 007) shall not exceed 2.72 pounds per hour.
(f) The PM$_{2.5}$ emissions from the Pickle Line Breaker Baghouse (stack 007) shall not exceed 2.72 pounds per hour.
(g) The PM emissions from the Two Stand Reversing Cold Mill (RCM-1), shall not exceed 18.22 pounds per hour.
(h) The PM$_{10}$ emissions from the Two Stand Reversing Cold Mill (RCM-1), shall not exceed 18.22 pounds per hour.
(i) The PM$_{2.5}$ emissions from the Two Stand Reversing Cold Mill (RCM-1), shall not exceed 18.22 pounds per hour.

Compliance with these limits, combined with the potential to emit PM, PM$_{10}$ and PM$_{2.5}$ from all other emission units at this source, shall limit the source-wide total potential to emit of PM, PM$_{10}$ and PM$_{2.5}$ to less than 100 tons per twelve (12) consecutive month period, each (nested source), and less than 250 tons per twelve (12) consecutive month period, each (source wide), and shall render the requirements of (Prevention of Significant Deterioration not applicable.

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 PM$_{10}$ 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 compliance schedule in 326 IAC 2-6-3 by July 1, 2006, and every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 2-7-6(5) (Annual Compliance Certification)
The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual
compliance certifications 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.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This source was constructed after December 13, 1985 and has potential fugitive particulate emissions of twenty-five (25) tons per year or more. Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the Fugitive Dust Control Plan that is included as Attachment A to the permit.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
This source (located in Vigo County) is located in one of the counties listed in 326 IAC 6.5, but is not one of the sources specifically listed in 326 IAC 6.5-2 through 326 IAC 6.5-10. The source-wide PTE of PM is 10 tons per year or more. Therefore, this source is subject to the requirements of 326 IAC 6.5-1-2 because the source-wide actual emissions of PM can be 10 tons per year or more.

326 IAC 6.8 (Particulate Matter Limitations for Lake County)
Pursuant to 326 IAC 6.8-1-1(a), this source (located in Vigo County) is not subject to the requirements of 326 IAC 6.8 because it is not located in Lake County.

326 IAC 20 (Hazardous Air Pollutants)
This source is not major source of HAP, as defined in 40 CFR 63.2, because HAP emissions are less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a minor source under Section 112 of the Clean Air Act (CAA).

State Rule Applicability – Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The provisions of 326 IAC 2-4.1 apply to any owner or operator who constructs or reconstructs a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.41, after July 27, 1997, unless the major source has been specifically regulated under or exempted from regulation under a NESHAP that was issued pursuant to Section 112(d), 112(h), or 112(j) of the Clean Air Act (CAA) and incorporated under 40 CFR 63. On and after June 29, 1998, 326 IAC 2-4.1 is intended to implement the requirements of Section 112(g)(2)(B) of the Clean Air Act (CAA).

The operation of this source will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

In order to assure this source is an area source of HAPs under Section 112 of the Clean Air Act (CAA), the Permittee shall comply with the following:

(a) The HCl emissions from the Pickle Line shall not exceed 2.05 pounds per hour.

Compliance with these limits, combined with the potential to emit HAP from all other emission units at the source, shall limit the source-wide potential to emit single HAP to less than 10 tons per twelve (12) consecutive month period and the source-wide potential to emit total HAPs to less than 25 tons per twelve (12) consecutive month period, and shall render the source an area source of HAP emissions under Section 112 of the Clean Air Act (CAA).

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
This source (located in Vigo County) is located in one of the counties listed in 326 IAC 6.5, but is not one of the sources specifically listed in 326 IAC 6.5-2 through 326 IAC 6.5-10. The source-wide PTE of PM is 10 tons per year or more. Therefore, this source is subject to the requirements of 326 IAC 6.5-1-2 because the source-wide actual emissions of PM can be 10 tons per year or more.
The source shall comply with the following:

(a) Pursuant to 326 IAC 6.5-1-2(b)(3), particulate matter (PM) emissions from the boilers (PB-1, PB-2, and PB-3) shall be limited to 0.01 grain per dry standard cubic foot.

(b) Pursuant to 326 IAC 6.5-1-2(a), each of the units in the Galvanizing Line, the Pickle Line Scale Breaker, the Batch Annealing System (BA-01-BA-06), and Temper Mill (TM-1), shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(c) Pursuant to 326 IAC 6.5-1-2(a), the Reversing Cold Mill (RCM-1) shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(d) Pursuant to 326 IAC 6.5-1-2(a), the Pickle Line (excluding the Scale Breaker) shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(e) Pursuant to 326 IAC 6.5-1-2(a), the seven (7) space heating units, with no identification, constructed in August 1999, with a maximum capacity of 6.6 million BTU per hour each, fired on natural gas shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(f) Pursuant to 326 IAC 6.5-1-2(a), the Diesel Emergency Generators shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(g) Pursuant to 326 IAC 6.5-1-2(a), the three (3) natural gas heaters, installed in 2010, with a rating of 150,000 BTU/hr each, shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(h) Pursuant to 326 IAC 6.5-1-2(a), the pot rig heater on the galvanizing line shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(i) Pursuant to 326 IAC 6.5-1-2(a), the three (3) cleaning section burners on the galvanizing line shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(j) Pursuant to 326 IAC 6.5-1-2(a), the three (3) gasoline generator/welders shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(k) Pursuant to 326 IAC 6.5-1-2(a), the six (6) Oxy-acetylene torch sets shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(l) Pursuant to 326 IAC 6.5-1-2(a), the seven (7) plasma cutters shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(m) Pursuant to 326 IAC 6.5-1-2(a), the six (6) plug-in MIG welders shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(n) Pursuant to 326 IAC 6.5-1-2(a), the TIG welder shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(o) Pursuant to 326 IAC 6.5-1-2(a), the two (2) plug-in stick welders shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.

(p) Pursuant to 326 IAC 6.5-1-2(a), the noncontact cooling tower systems shall not discharge any gases containing more than 0.03 grain per dry standard cubic foot of particulate matter.
326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2-1(e), if any limitation established by this rule is inconsistent with applicable limitations contained in 326 IAC 6.5 and 326 IAC 6.8, then the limitations contained in 326 IAC 6.5 and 326 IAC 6.8 prevail. Since the PM emissions from the three (3) Package Boilers (PB-1 through PB-3), seven (7) space heaters, and three (3) natural gas heaters are subject to more stringent limitations in 326 IAC 6.5, then the limitations contained in 326 IAC 6.5 prevail.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
(a) Pursuant to 326 IAC 6-3-1(b)(14), the Temper Mill (TM-1), and the Galvanizing Line units GL-01 - GL-04, GL-06, GL-07, and GL-10 are exempt from 6-3-2 because each has a potential to emit less than 0.551 pounds of particulate matter per hour. The natural gas-fired combustion units are exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.

(b) Pursuant to 326 IAC 6-3-1(c)(3), 326 IAC 6-3-2 does not apply if a particulate matter limitation established in 326 IAC 6.5 is more stringent. A comparison of the 6-3-2 limit and the 6.5 limit are summarized in the table below:

<table>
<thead>
<tr>
<th>Process</th>
<th>Process Weight Rate (tons/hr)</th>
<th>6-3-2 Limit (lbs/hr)</th>
<th>Air Flow (cfm)</th>
<th>326 IAC 6.5 Limit (lbs/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GL-05</td>
<td>70</td>
<td>47.77</td>
<td>8500</td>
<td>2.19</td>
</tr>
<tr>
<td>PL-1</td>
<td>300</td>
<td>63.00</td>
<td>13000</td>
<td>3.34</td>
</tr>
<tr>
<td>Pickle Line</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scale Breaker</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCM-1</td>
<td>200</td>
<td>58.51</td>
<td>130000</td>
<td>33.43</td>
</tr>
</tbody>
</table>

The 6-3-2 limit was calculated using the following formula:

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

The 326 IAC 6.5 limits were calculated using the following equation:

\[ \text{PM Limit} = 0.03 \text{gr/ft}^3 \times 1\text{lb}/7000 \text{gr} \times \text{Exhaust flow rate ft}^3/\text{min} \times 60 \text{ min/hour} \]

According to the calculations above, 326 IAC 6.5 limits are the more stringent, and therefore 326 IAC 6-3-2 does not apply to these processes.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
None of the emission units are subject to 326 IAC 326 IAC 7-1.1 because the SO\(_2\) PTE (or limited SO\(_2\) PTE) is less than 25 tons/year or 10 pounds/hour.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Even though all the emission units at this source were constructed after January 1, 1980, they are not subject to the requirements of 326 IAC 8-1-6 because the unlimited VOC potential emissions of each unit is less than twenty-five (25) tons per year.

326 IAC 8-3 (Organic Solvent Degreasing Operations)
The cold cleaner degreasers are subject to 326 IAC 8-3-2(a) and 326 IAC 8-3-8. They are not subject to 326 IAC 8-3-2(b) because they are equipped with remote solvent reservoirs.
326 IAC 8-4-6 Gasoline Dispensing Facilities
The gasoline fuel transfer and dispensing operation is not subject to 326 IAC 8-4-6 because it is not in the counties listed in 326 IAC 8-4-1 and the storage tank has a gasoline throughput of less than 10,000 gallons/month.

326 IAC 10-1 (Nitrogen Oxide Emission Requirements)
This source is not located in Clark or Floyd County. Therefore, it is not subject to the requirements of 326 IAC 10-1.

### Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 (Part 70) 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 determination requirements applicable to this source are as follows:

### Testing Requirements:

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Control Device</th>
<th>Timeframe for Initial Testing or Date of Initial Valid Demonstration</th>
<th>Pollutant</th>
<th>Frequency of Testing</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galvanizing Line Spray Cleaner System (GL-05)</td>
<td>Mist Eliminator</td>
<td>May 9, 2014</td>
<td>PM/PM10/PM2.5</td>
<td>Every Five Years</td>
<td>PSD Minor Limits 326 IAC 2-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>May 9, 2014</td>
<td>PM</td>
<td></td>
<td>326 IAC 6.5-1-2</td>
</tr>
<tr>
<td>Pickle Line Scale Breaker</td>
<td>Baghouse</td>
<td>May 7, 2014</td>
<td>PM/PM10/PM2.5</td>
<td>Every Five Years</td>
<td>PSD Minor Limits 326 IAC 2-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>May 7, 2014</td>
<td>PM</td>
<td></td>
<td>326 IAC 6.5-1-2</td>
</tr>
<tr>
<td>Pickle Line</td>
<td>Wet scrubber</td>
<td>May 8, 2014</td>
<td>HCl</td>
<td>Every Five Years</td>
<td>HAP Minor Limits 40 CFR 63</td>
</tr>
<tr>
<td>Two Stand Reversing Cold Mill (RCM-1)</td>
<td>Baghouse</td>
<td>May 6, 2014</td>
<td>PM/PM10/PM2.5</td>
<td>Every Five Years</td>
<td>PSD Minor Limits 326 IAC 2-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>May 6, 2014</td>
<td>PM</td>
<td></td>
<td>326 IAC 6.5-1-2</td>
</tr>
</tbody>
</table>

(1) IDEM OAQ has determined that testing of the tanks and dryer of the Pickle Line PL-1 (stack 001) is not required at this time to determine compliance with the PM, PM10, or PM2.5 emission limits. IDEM has the authority to require testing at a later time if necessary to demonstrate compliance with any applicable requirement.
(b) The compliance monitoring requirements applicable to this source are as follows:

<table>
<thead>
<tr>
<th>Control</th>
<th>Parameter</th>
<th>Frequency</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mist Eliminator for GL-05 (stack 006)</td>
<td>Pressure Drop</td>
<td>Daily</td>
<td>0.1 - 0.6 inches of water</td>
</tr>
<tr>
<td>Baghouse for the Pickle Line Scale Breaker (stack 007)</td>
<td>Visible Emissions</td>
<td>Daily</td>
<td>Normal/Abnormal</td>
</tr>
<tr>
<td>Wet scrubber ECU-1 for the tanks and dryer of the Pickle Line (stack 001)</td>
<td>Minimum water flow rate</td>
<td>Daily</td>
<td>&gt; 1.0 gpm</td>
</tr>
<tr>
<td>Baghouse for RCM-1 (stack 004)</td>
<td>Pressure Drop</td>
<td>Daily</td>
<td>0.5 - 3.0 inches of water</td>
</tr>
</tbody>
</table>

These monitoring conditions are necessary because the mist eliminator for the Galvanizing Line Spray Cleaner, the baghouse for the Pickle Line Scale Breaker, the wet scrubber ECU-1 for the tanks and dryer of the Pickle Line, and the progressive purification filter system for the Two Stand Reversing Cold Mill, must operate properly to assure compliance with 326 IAC 6.5, 326 IAC 2-7 (Part 70), and 40 CFR 64.2 (CAM) and to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) not applicable.

Proposed Changes

As part of this permit approval, the permit may contain new or different permit conditions and some conditions from previously issued permits/approvals may have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes.

The following changes were made to conditions contained in previously issued permits/approvals (these changes may include Title I changes):

1. The maximum capacities of the emission units were changed to nominal capacities, as requested by the Permittee.

2. One (1) Galvanizing Line Strip Dryer Furnace, identified as GL-01 has been removed, as requested by the Permittee.

3. One (1) Galvanizing Line Chromate Spray section, identified as GL-08 has been removed, as requested by the Permittee.

4. One (1) Galvanizing Line Electric Induction Dryer, identified as GL-09 has been added, as requested by the Permittee.

5. One (1) Galvanizing Line Chromate Roll Applicator, identified as GL-10, has been added, as requested by the Permittee.

6. Pickle tank #1 through pickle tank #4 of Pickle Line PL-1, have been revised to indicate that the tanks are controlled by a packed tower wet scrubber (including a mist eliminator pad), as requested by the Permittee.

7. The Strip Dryer, identified as PL-dryer, has been revised to indicate that the dryer is not controlled by the scrubber ECU-1 and that the dryer exhausts inside the building.

8. Six (6) bases and three (3) batch annealing furnaces (BA-07 through BA-09) have been removed from the Batch Annealing system, as requested by the Permittee.
The seven (7) space heating units listed in Section D.4 of permit No. 32914 were removed from said Section. The space heating units are now listed and regulated in Section D.5 of permit No. 40187.

One (1) Oxy-acetylene torch has been added, as requested by the Permittee.

One (1) plasma cutter has been added, as requested by the Permittee.

One (1) plug-in stick welder has been added, as requested by the Permittee.

Makes and models of emission control devices have been removed. Details associated with utilized materials and their containers have been removed, as requested by the Permittee.

Emergency Provisions in permit Section B.11 have been modified, as requested by the Permittee.

Provisions associated with Transfer of Ownership or Operational Control in permit Section B.22 have been modified, as requested by the Permittee.

Provisions associated with Asbestos Abatement Projects in permit Section C.6 have been modified, as requested by the Permittee.

As requested by the Permittee, citations to PSD and Emission Offset have been removed from the General Reporting Requirements in permit Section C.17, because they are not implicated in the general reporting requirements.

Requirements associated with the calibration of instruments have been revised in permit Conditions D.1.6, D.3.6, D.3.8, and D.4.6 to allow for the calibration or replacement of the instruments in accordance with the manufacturer's specifications.

The following sentence was added to all the NSPS and NESHAPs in Sections E of the permit: "Where the NSPS (or NESHAP) provides options for compliance, nothing in this condition precludes the Permittee from choosing among those options or requires the Permittee to use a particular option."

The provisions associated with 40 CFR Part 63, Subpart ZZZZ in permit Condition E.2.2 have been updated, as requested by the Permittee.

Particulate fugitives from roads have been added because they had not been included in previous permits.

Emissions calculations from the electrostatic oilers have been revised by utilizing the correct formula.

Emission calculations have been updated in accordance with all the issues listed above.

The Major Source status was changed to Minor Source, under Section 112 of the Clean Air Act.

Fugitive Particulate Matter Emission Limitations [326 IAC 6-5] were added at permit Condition C.5 because the uncontrolled PTE fugitive particulate matter emissions from the entire source is greater than 25 tons per year.

Added permit Condition D.3.2 (HAP Minor Limits [40 CFR 63]) to limit HCl emissions from the Pickle Line PL-1.

Added permit Condition D.3.5(b) for the tanks and dryer of the Pickle Line PL-1.
(28) Added a requirement of HCl testing on the Pickle Line at permit Condition D.3.6(b).

(29) At permit Condition D.3.7, the requirement of daily recording of pressure drop across the Wheelabrator baghouse was removed. Daily recording of water flow rate across the wet scrubber ECU-1 was added. This was conducted in accordance with the Compliance Monitoring Guidance.

(30) Recordkeeping requirements were revised at permit Condition D.3.9 to indicate water flow rate recording obligations. The recordkeeping requirement of daily recording of pressure drop across the Wheelabrator baghouse was removed.

(31) Emission Limits from the Two Stand Reversing Cold Mill (RCM-1) for PM, PM10 and PM2.5 were changed from 21.7 TPY to 18.22 TPY at permit Condition D.4.1.

(32) Permit Condition D.4.2(a) was added to the permit for PM emissions limitations from the Two Stand Reversing Cold Mill (RCM-1).

(33) Testing requirements for PM, PM10, and PM2.5 on the RCM-1 outlet Condition D.4.4.

(34) Permit Condition D.4.5 was added to the permit.

(35) The requirements of 40 CFR 63, Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters were removed from the permit because the source is no longer a Major Source of HAP.

(36) The requirements of 40 CFR 63, Subpart CCC: National Emission Standards for Hazardous Air Pollutants for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants were removed from the permit because the source is no longer a Major Source of HAP.

(37) The requirements of 40 CFR 63, Subpart CCCCCC: National Emission Standards for Hazardous Air Pollutants for Gasoline-Dispensing Facilities were added to the permit for the gasoline fuel transfer and dispensing operation because the source is an area source.

(38) A Fugitive Particulate Control Plan was added as an Attachment to the permit.

**Conclusion and Recommendation**

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on July 9, 2018. Additional information was received on January 15, 16, and 24, 2019.

The operation of this steel processing plant shall be subject to the conditions of the attached proposed Part 70 Operating Permit Renewal No. 167-40187-00120.

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved.
(a) If you have any questions regarding this permit, please contact Jorge Cirnigliaro, 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) 234-5174 or (800) 451-6027, and ask for Jorge Cirnigliaro or (317) 234-5174.

(b) A copy of the findings is available on the Internet at: [http://www.in.gov/ai/appfiles/idem-caats/](http://www.in.gov/ai/appfiles/idem-caats/)

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

#### Emissions Summary (tons/yr)

**Company Name:** Steel Dynamics Heartland, LLC  
**Address:** 455 West Industrial Drive, Terre Haute, Indiana 47802  
**Permit #:** T-167-40187-00120  
**Reviewer:** Jorge Cirnigliaro  
**Date:** January 2019

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>PM (tons/yr)</th>
<th>PM$_{2.5}$ (tons/yr)</th>
<th>SO$_2$ (tons/yr)</th>
<th>NO$_x$ (tons/yr)</th>
<th>VOC (tons/yr)</th>
<th>CO (tons/yr)</th>
<th>Total HAPs (tons/yr)</th>
<th>Single HAP (tons/yr)</th>
<th>Worst HAP ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA-01-BA-06</td>
<td>0.29</td>
<td>1.17</td>
<td>1.17</td>
<td>0.09</td>
<td>7.73</td>
<td>1.12</td>
<td>12.99</td>
<td>0.29</td>
<td>0.28</td>
</tr>
<tr>
<td>TM-1</td>
<td>0.004</td>
<td>0.043</td>
<td>0.043</td>
<td>-</td>
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<tr>
<td>RCM-1</td>
<td>723.00</td>
<td>1,323.00</td>
<td>1,323.00</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Subtotal nested 1/28</td>
<td>723.30</td>
<td>1,323.00</td>
<td>1,323.00</td>
<td>0.09</td>
<td>7.73</td>
<td>11.20</td>
<td>12.99</td>
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<td>0.28</td>
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<tr>
<td>Road Fugitives*</td>
<td>22.29</td>
<td>5.29</td>
<td>0.81</td>
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<td>Total of Nested Sources Including Road Fugitives</td>
<td>745.59</td>
<td>1,328.29</td>
<td>1,323.81</td>
<td>0.09</td>
<td>7.73</td>
<td>11.20</td>
<td>12.99</td>
<td>0.29</td>
<td>0.28</td>
</tr>
<tr>
<td>NG Comb. GL-1,2,3, &amp; PB-1,2,3</td>
<td>1.31</td>
<td>5.24</td>
<td>5.24</td>
<td>0.41</td>
<td>34.48</td>
<td>3.79</td>
<td>57.93</td>
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<td>NG Comb. Space Heaters</td>
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<td>GL-05</td>
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<td>38.28</td>
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<tr>
<td>GL-06</td>
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<td>-</td>
<td>4.02</td>
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<td>PL-1, Scale Breaker</td>
<td>147.74</td>
<td>147.74</td>
<td>147.74</td>
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<td>28.47</td>
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<td>0.29</td>
<td>2.93</td>
<td>17.36</td>
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<td>7.97E-03</td>
<td>3.93E-03</td>
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<td>-</td>
<td>0.11</td>
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<td>-</td>
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</tr>
<tr>
<td>Welding</td>
<td>1.81</td>
<td>1.81</td>
<td>1.81</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.06</td>
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<tr>
<td>Oilers</td>
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<td>10.35</td>
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<tr>
<td>Misc.</td>
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<td>-</td>
<td>9.32</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Total of non-Nested Sources excluding road fugitives</td>
<td>190.36</td>
<td>195.86</td>
<td>195.86</td>
<td>3.53</td>
<td>83.26</td>
<td>25.83</td>
<td>88.29</td>
<td>29.84</td>
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<tr>
<td>Total entire source</td>
<td>935.95</td>
<td>1,524.15</td>
<td>1,519.68</td>
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<td>90.99</td>
<td>37.03</td>
<td>101.28</td>
<td>10.64</td>
<td>8.98</td>
</tr>
</tbody>
</table>

*According to the source, the nested source generates 19% of the total particulate road fugitives.

#### *Limited Potential to Emit (tons/year)

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>PM (tons/yr)</th>
<th>PM$_{2.5}$ (tons/yr)</th>
<th>SO$_2$ (tons/yr)</th>
<th>NO$_x$ (tons/yr)</th>
<th>VOC (tons/yr)</th>
<th>CO (tons/yr)</th>
<th>Total HAPs (tons/yr)</th>
<th>Single HAP (tons/yr)</th>
<th>Worst HAP ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA-01-BA-06</td>
<td>0.29</td>
<td>1.17</td>
<td>1.17</td>
<td>0.09</td>
<td>7.73</td>
<td>1.12</td>
<td>12.99</td>
<td>0.29</td>
<td>0.28</td>
</tr>
<tr>
<td>TM-**</td>
<td>0.002</td>
<td>0.043</td>
<td>0.043</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>RCM-1</td>
<td>79.80</td>
<td>79.80</td>
<td>79.80</td>
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<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Subtotal nested 1/28</td>
<td>80.10</td>
<td>81.02</td>
<td>81.02</td>
<td>0.09</td>
<td>7.73</td>
<td>11.20</td>
<td>12.99</td>
<td>0.29</td>
<td>0.28</td>
</tr>
<tr>
<td>Road Fugitives*</td>
<td>11.15</td>
<td>2.65</td>
<td>0.41</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Total of Nested Sources Including Road Fugitives</td>
<td>91.25</td>
<td>83.67</td>
<td>81.43</td>
<td>0.09</td>
<td>7.73</td>
<td>11.20</td>
<td>12.99</td>
<td>0.29</td>
<td>0.28</td>
</tr>
<tr>
<td>NG Comb. GL-1,2,3, &amp; PB-1,2,3</td>
<td>1.31</td>
<td>5.24</td>
<td>5.24</td>
<td>0.41</td>
<td>34.48</td>
<td>3.79</td>
<td>57.93</td>
<td>1.30</td>
<td>1.24</td>
</tr>
<tr>
<td>NG Comb. Space Heaters</td>
<td>0.60</td>
<td>2.39</td>
<td>2.39</td>
<td>0.19</td>
<td>31.41</td>
<td>1.73</td>
<td>26.39</td>
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<td>0.00</td>
</tr>
<tr>
<td>GL-05</td>
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<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>GL-06</td>
<td>0.11</td>
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<td>0.11</td>
<td>-</td>
<td>4.02</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>PL-1, Scale Breaker</td>
<td>13.34</td>
<td>13.34</td>
<td>13.34</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8.98</td>
<td>8.98</td>
<td>HCl</td>
</tr>
<tr>
<td>Emer. Gen.</td>
<td>0.51</td>
<td>0.29</td>
<td>0.29</td>
<td>2.93</td>
<td>17.36</td>
<td>0.51</td>
<td>3.98</td>
<td>7.97E-03</td>
<td>3.93E-03</td>
</tr>
<tr>
<td>Veh. Refueling</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Welding</td>
<td>1.81</td>
<td>1.81</td>
<td>1.81</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.06</td>
<td>0.05</td>
<td>Mn</td>
</tr>
<tr>
<td>Oilers</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10.35</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Misc.</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9.32</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total of non-Nested Sources excluding road fugitives</td>
<td>27.26</td>
<td>32.77</td>
<td>32.77</td>
<td>3.53</td>
<td>83.26</td>
<td>25.83</td>
<td>88.29</td>
<td>29.84</td>
<td>28.47</td>
</tr>
<tr>
<td>Total entire source</td>
<td>118.51</td>
<td>116.43</td>
<td>114.20</td>
<td>3.62</td>
<td>90.99</td>
<td>37.03</td>
<td>101.28</td>
<td>10.64</td>
<td>8.98</td>
</tr>
</tbody>
</table>

*According to the source, the nested source generates 19% of the total particulate road fugitives.
## Appendix A

### Units constructed under 326 IAC 2-1.1-3 (Exemptions)

**Company Name:** Steel Dynamics Heartland, LLC  
**Address:** 455 West Industrial Drive, Terre Haute, Indiana 47802  
**Permit #:** T167-40187-00120  
**Reviewer:** Jorge Cirnigliaro  
**Date:** January 2019

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>Mn</th>
</tr>
</thead>
<tbody>
<tr>
<td>GL Electric Induction Dryer (GL-09)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>GL Chromate Roll Applicator (GL-10)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Oxy-acetylene torch</td>
<td>0.192</td>
<td>0.192</td>
<td>0.192</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>0.001</td>
</tr>
<tr>
<td>Plasma cutter</td>
<td>0.002</td>
<td>0.002</td>
<td>0.002</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.000</td>
</tr>
<tr>
<td>Plug-in stick welder</td>
<td>0.092</td>
<td>0.092</td>
<td>0.092</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.004</td>
</tr>
<tr>
<td><strong>Potential Emission in tons/yr</strong></td>
<td><strong>0.286</strong></td>
<td><strong>0.286</strong></td>
<td><strong>0.286</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td><strong>0.005</strong></td>
</tr>
</tbody>
</table>
Appendix A: Emissions Calculations
Natural Gas Combustion Only - Low-Nox Burners
MM BTUHR <100

**Batch Annealing Furnaces**

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>Steel Dynamics Heartland, LLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address City IN Zip:</td>
<td>455 West Industrial Drive, Terre Haute, Indiana 47802</td>
</tr>
<tr>
<td>Permit Number:</td>
<td>T167-40187-00120</td>
</tr>
<tr>
<td>Reviewer:</td>
<td>Jorge Cirnigliaro</td>
</tr>
<tr>
<td>Date:</td>
<td>January 2019</td>
</tr>
</tbody>
</table>

### Heat Input Capacity

<table>
<thead>
<tr>
<th>MM BTU/hr</th>
<th>Emission Unit</th>
<th>HHV mmBTU</th>
<th>Potential Throughput MMCF/yr mmscf</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.0</td>
<td>BA-01</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>BA-02</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>BA-03</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>BA-04</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>BA-05</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>6.0</td>
<td>BA-06</td>
<td>36.0</td>
<td>1020</td>
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</table>

**Pollutant Emission**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
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</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>1.9</td>
<td>7.6</td>
<td>7.6</td>
<td>0.6</td>
<td>50</td>
<td>5.5</td>
<td>84</td>
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</tbody>
</table>

**Potential Emission in tons/yr**

- **PM* emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.**
- **PM2.5 emission factor is filterable and condensable PM2.5 combined.**
- **Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32**

**Methodology**

All emission factors are based on normal firing.

- MMBtu = 1,000,000 Btu
- MMCF = 1,000,000 Cubic Feet of Gas
- Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
- Potential Throughput (MMCF/yr) = 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

**HAPS Calculations**

**HAPS - Organics**

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Benzen</th>
<th>Dichlorobenzen</th>
<th>Formaldehyde</th>
<th>Hexane</th>
<th>Toluene</th>
<th>Total - Organics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.1E-03</td>
<td>1.2E-03</td>
<td>7.5E-02</td>
<td>1.8E+00</td>
<td>3.4E-03</td>
<td></td>
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</tbody>
</table>

| Potential Emission in tons/yr | 3.246E-04 | 1.655E-04 | 1.159E-02 | 2.783E-01 | 5.256E-04 | 2.909E-01 |

**HAPS - Metals**

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Lead</th>
<th>Cadmium</th>
<th>Chromium</th>
<th>Manganese</th>
<th>Nickel</th>
<th>Total - Metals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.0E-04</td>
<td>1.1E-03</td>
<td>1.4E-03</td>
<td>3.8E-04</td>
<td>2.1E-03</td>
<td></td>
</tr>
</tbody>
</table>


**Total HAPs**

- **Worst HAP (Hexane):** 2.783E-01

**Methodology**

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

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

**Batch Annealing oiler**

for evaporated oil from BA-01 through BA-06

<table>
<thead>
<tr>
<th>Batch Annealing oiler</th>
<th>Quaker XP 189</th>
<th>1.0</th>
<th>15% mineral oil</th>
<th>mineral oil is 6% VOC per CRP-1 MSDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 mg oil X</td>
<td>104.438 ft²</td>
<td>steel</td>
<td>x 8760 hr</td>
<td>0.009 ton VOC/ton oil</td>
</tr>
<tr>
<td>1 lb oil X</td>
<td>453.59 g</td>
<td>oil</td>
<td>x 1 ton oil</td>
<td>0.009 ton VOC/ton oil</td>
</tr>
<tr>
<td>1000 mg oil X</td>
<td>x 2000 lb</td>
<td>oil</td>
<td>x 1 ton oil</td>
<td>0.27 ton VOC/yr</td>
</tr>
</tbody>
</table>
Appendix A: Emission Calculations

Temper Mill (TM-1)

Company Name: Steel Dynamics Heartland, LLC
Address City IN Zip: 455 West Industrial Drive, Terre Haute, Indiana 47802
Permit Number: T167-40187-00120
Reviewer: Jorge Cirnigliaro
Date: January 2019

Average lbs of steel/hour during stack test: 128737 lbs/hour
Maximum lbs of steel/hour permitted: 158000 lbs/hour
PM Emission rate from stack test: .003 lbs/hour

Potential to Emit PM: .003 lbs/hour x (158000/128737) x 1 ton/2000 lbs x 8760 hrs/yr = 0.0016 tons/yr = 0.0004 lb/hr < 0.551 lb/hr

PM10/PM2.5 Emission rate from stack test: 0.008 lbs/hour

Potential to Emit PM10/PM2.5: 0.008 lbs/hour x(158000/128736) x 1 ton/2000 lbs x 8760 hrs/yr = 0.043 tons/yr
Outlet Grain Loading limited by 326 IAC 6.5-1-2(a): 0.03 gr/dscf

Stack 004 Flow Rate: 130000 acfm
Control Efficiency: 99%

Limited PM/PM10/PM2.5 Emissions, based on 326 IAC 6.5-1-2(a) outlet grain load limit of 0.03 gr/dscf:

\[
0.03 \text{ gr/dscf} \times 130000 \text{ acfm} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 grains} = 33.43 \text{ lb/hr}
\]

33.43 lb/hr x 8760 hours/year x 1 ton/2000 lbs = 146.42 tons/yr

Based on the Stack Test performed on May 6, 2014, emissions resulted as follows: PM = 1.65 lb/hr (7.23 TPY); PM/PM2.5 = 3.02 lb/hr (13.23 TPY)

Uncontrolled PM Emissions = controlled emissions/(1-0.99) = 7.23/(1-0.99) = 723.00 TPY

Uncontrolled PM10/PM2.5 Emissions = controlled emissions/(1-0.99) = 13.23/(1-0.99) = 1,323.00 TPY

PSD Limit PM/PM10/PM2.5 of 18.22 lb/hr taken in Permit 167-40187-00120: 79.80 tons/yr

326 IAC 6.5 Applicability: Note that the PSD limit of 79.80 tons/year is less than the 326 IAC 6.5-1-2(a) limit of 146.42 tons/yr
## Galvanizing Lines and Package Boilers

### Natural Gas Combustion Only - Low-Nox Burners

**Company Name:** Steel Dynamics Heartland, LLC  
**Address City In Zip:** 455 West Industrial Drive, Terre Haute, Indiana 47802  
**Permit Number:** T167-40187-00120  
**Reviewer:** Jorge Cirnigliaro  
**Date:** January 2019

### Emission Calculations

#### Natural Gas Combustion Only - Low-Nox Burners

- **HHV:** 2.0 GL-01 1020 17.18  
- **HHV:** 13.2 GL-03 1020 113.36  
- **HHV:** 2.0 GL-04 1020 17.18  
- **HHV:** 32.7 PB-01 1020 280.84  
- **HHV:** 32.7 PB-02 1020 280.84  
- **HHV:** 32.7 GL-10 1020 280.84

### Emission Factors

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>1.9</td>
<td>7.6</td>
<td>7.6</td>
<td>0.6</td>
<td>50</td>
<td>5.5</td>
<td>84</td>
</tr>
</tbody>
</table>

**PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.**

**PM2.5 emission factor is filterable and condensable PM2.5 combined.**

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

<table>
<thead>
<tr>
<th>Methodology</th>
<th>All emission factors are based on normal firing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMBtu = 1,000,000 Btu</td>
<td></td>
</tr>
<tr>
<td>MMCF = 1,000,000 Cubic Feet of Gas</td>
<td></td>
</tr>
</tbody>
</table>

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

### HAPs Calculations

#### HAPs - Organics

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Benzene</th>
<th>Dichlorobenzene</th>
<th>Formaldehyde</th>
<th>Hexane</th>
<th>Toluene</th>
<th>Total - Organics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Emission in tons/yr</td>
<td>1.448E-03</td>
<td>8.27E-04</td>
<td>5.172E-02</td>
<td>1.241E+00</td>
<td>2.345E-03</td>
<td>1.296E-00</td>
</tr>
</tbody>
</table>

#### HAPs - Metals

<table>
<thead>
<tr>
<th>Emission Factor in lb/MMcf</th>
<th>Lead</th>
<th>Cadmium</th>
<th>Chromium</th>
<th>Manganese</th>
<th>Nickel</th>
<th>Total</th>
<th>Total HAPs</th>
</tr>
</thead>
</table>

**Methodology is the same as above.**

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.
Natural Gas Combustion Only

Company Name: Steel Dynamics Heartland, LLC
Address City IN Zip: 455 West Industrial Drive, Terre Haute, Indiana 47802
Permit Number: T167-40187-00120
Reviewer: Jorge Cirnigliaro
Date: January 2019

Heat Input Capacity  HI/HR  MM BTU/hr  Potential Throughput
MMBTU/hr  mmbtu  MMCF/yr

<table>
<thead>
<tr>
<th></th>
<th>7 space heaters</th>
<th>3 space heaters</th>
<th>Pot rig heater on galv. Line</th>
<th>Cleaning section burners on galv. Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.2</td>
<td>6.6 MM BTU/hr</td>
<td>0.15 MM BTU/hr</td>
<td>2.5</td>
<td>24.0</td>
</tr>
<tr>
<td>1020</td>
<td>7</td>
<td>3</td>
<td>21.4</td>
<td>206.1176471</td>
</tr>
<tr>
<td>396.7764706</td>
<td>3.864705882</td>
<td>21.47058824</td>
<td>206.1176471</td>
<td></td>
</tr>
</tbody>
</table>

Emission Factor in lb/MMCF

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/MMCF</td>
<td>1.9</td>
<td>7.6</td>
<td>7.6</td>
<td>0.6</td>
<td>100</td>
<td>5.5</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Potential Emission in tons/yr

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.6</td>
<td>2.4</td>
<td>2.4</td>
<td>0.2</td>
<td>31.4</td>
<td>1.7</td>
<td>26.4</td>
</tr>
</tbody>
</table>

Methodology

All emission factors are based on normal firing.
MMBTU = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Potential Throughput (MMCF) = Heat Input Capacity (MMBTU/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBTU
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
Appendix A: Emission Calculations

### Line Spray Cleaning Section (GL-05)

*Outlet Grain Loading, limited by 326 IAC 6.5:*

Outlet Grain Loading: 0.03 gr/dscf

Stack Flow Rate: 8500 acfm

Control Efficiency: 75%

**Controlled PM/PM10/PM2.5 Emissions, based on 326 IAC 6.5-1-2(a) outlet grain load limit of 0.03 gr/dscf:**

\[
0.03 \text{ gr/dscf} \times 8500 \text{ acfm} \times 60 \text{ min/hour} \times 1 \text{ lb/7000 grains} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = \text{9.57 tons/yr}
\]

**Uncontrolled PM/PM10/PM2.5 Emissions:**

\[
\frac{9.57 \text{ tons/yr}}{1-0.75} = 38.28 \text{ tons/yr} \quad = \frac{8.74 \text{ lb/hr}}{1.75}
\]

**Limited PSD of 2.19 lb/h GL-10**

\[
9.59 \text{ tons/yr}
\]

### Induction Melting Section (GL-06)

Maximum zinc melt capacity of 10,200 lbs/hr: 5.10 tons/hour

PM/PM10/PM2.5 Emission Factor: 0.005 lbs/ton

**PM/PM10/PM2.5 Emissions:**

\[
5.1 \text{ tons zinc/hour} \times 0.005 \text{ lbs/ton} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 0.11 \text{ tons/yr} \quad = 0.025 \text{ lb/hr}
\]

VOC Emission Factor: 0.18 lbs/ton

**VOC Emissions:**

\[
5.1 \text{ tons zinc/hour} \times 0.18 \text{ lbs/ton} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 lbs} = 4.02 \text{ tons/yr}
\]

Emission factors are from WebFIRE. PM/PM10= SCC 3-04-008-70. VOC= 3-04-008-43.

### Galvanizing Line Temper Mill (GL-07)

The Galvanizing Line Temper Mill uses detergent as the rolling fluid and has negligible emissions.**

Since there is no heat applied during the process there is no mechanism that would result in the detergent being released as particulate matter.

**The detergent is used to lubricate the rolls under ambient conditions, including temperature.

### Chromate roll application (GL-10)

Maximum Chromate used: 0.40 lbs/hr

Transfer efficiency (%): 100

Transfer efficiency for Roll Application was estimated in 100%.

**PM/PM10/PM2.5, Chromium Compound Emissions:**

\[
0.40 \text{ lbs/hr} \times 8760 \text{ hrs/year} \times 1 \text{ ton/2000 lbs} \times (1-(100/100)) = 0.00 \text{ tons/yr}
\]
### Pickle Line HCl/PM/PM10/PM2.5 Emissions (Stack 001)

* Average Emission Rate: 0.26 lbs HCL, PM, PM10, PM2.5/hour

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate</th>
<th>Unit(s)</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlled Emissions</td>
<td>0.26 lbs HCL, PM, PM10, PM2.5/hour</td>
<td></td>
<td>0.26 lbs HCL, PM, PM10, PM2.5/hour x 1.25(safety factor) x 8760 hours/year x 1 ton/2000 lbs = 1.42 tons/yr</td>
</tr>
<tr>
<td>Collection Efficiency</td>
<td>95%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncontrolled Emissions</td>
<td>controlled efficiency / (1-(collection efficiency/100)) = 1.42 tons/yr / (1-(95/100)) = 28.47 tons/yr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Outlet emission rate was taken from a stack test conducted on June 1, 2006 and approved by IDEM OAQ on August 2, 2006.

### Pickle Line, Limited HCl Emissions (Stack 001)

Area Source HAP Limit of 2.05 lb/hr, taken in permit No. 167-40187-00120 = 8.98 tons/yr

### Pickle Line Scale Breaker (Stack 007)

**GL-10**

*Outlet Grain Loading: 0.03 gr/dscf

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate</th>
<th>Unit(s)</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stack 007 Flow rate</td>
<td>10590 acfm</td>
<td>acfm</td>
<td></td>
</tr>
<tr>
<td>Control Efficiency (%)</td>
<td>90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Limited PM/PM10/PM2.5 Emissions, based on 326 IAC 6.5-1-2(a) outlet grain load limit of 0.03 gr/dscf:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate</th>
<th>Unit(s)</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.03 gr/dscf x 10590 acfm x 60 min/hr x 1 lb/7000 gr x 8760 hr/yr x 1 ton/2000 lbs =</td>
<td>11.93 tons/yr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Uncontrolled PM/PM10/PM2.5 Emissions based on 326 IAC 6.5-1-2(a) limited emissions:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate</th>
<th>Unit(s)</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.93 tons/year(1-.90) = 119.27 tons/yr</td>
<td>119.27 tons/yr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Controlled PM/PM10/PM2.5 Emissions, based on 326 IAC 6.5-1-2(a) outlet grain load limit of 0.03 gr/dscf:**

*Outlet Grain Loading limited by 326 IAC 6.5.

**PSD limit of 2.72 lb/hr taken in Permit 167-32914-00120, Section D.3.1 = 11.91 tons/yr**
Large Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (>600 HP)
Maximum Input Rate (>4.2 MMBtu/hr)

Company Name: Steel Dynamics Heartland, LLC
Address City IN Zip: 455 West Industrial Drive, Terre Haute, Indiana 47802
Permit Number: T167-40187-00120
Reviewer: Jorge Cirnigliaro
Date: January 2019

Emissions calculated based on output rating (hp)

<table>
<thead>
<tr>
<th>Output Horsepower Rating (hp)</th>
<th>2894.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two emergency generators at 1,447 BHP each</td>
<td></td>
</tr>
<tr>
<td>Maximum Hours Operated per Year</td>
<td>500</td>
</tr>
<tr>
<td>Potential Throughput (hp-hr/yr)</td>
<td>1,447,000</td>
</tr>
<tr>
<td>Sulfur Content (S) of Fuel (% by weight)</td>
<td>0.500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>PM*</th>
<th>PM10*</th>
<th>direct PM2.5*</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor GL-10</td>
<td>7.00E-04</td>
<td>4.01E-04</td>
<td>4.01E-04</td>
<td>4.05E-03</td>
<td>2.40E-02</td>
<td>7.05E-04</td>
<td>5.50E-03</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>0.506</td>
<td>0.290</td>
<td>0.290</td>
<td>2.927</td>
<td>17.364</td>
<td>0.510</td>
<td>3.979</td>
</tr>
</tbody>
</table>

*PM10 emission factor in lb/hp-hr was calculated using the emission factor in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

**NOx emission factor: uncontrolled = 0.024 lb/hp-hr, controlled by ignition timing retard = 0.013 lb/hp-hr

Hazardous Air Pollutants (HAPs)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Benzene</th>
<th>Toluene</th>
<th>Xylene</th>
<th>Formaldehyde</th>
<th>Acetaldehyde</th>
<th>Acrolein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Factor in lb/hp-hr****</td>
<td>5.43E-06</td>
<td>1.97E-06</td>
<td>1.35E-06</td>
<td>5.52E-07</td>
<td>1.76E-07</td>
<td>5.52E-08</td>
</tr>
<tr>
<td>Potential Emission in tons/yr</td>
<td>3.93E-03</td>
<td>1.42E-03</td>
<td>9.77E-04</td>
<td>4.00E-04</td>
<td>1.28E-04</td>
<td>3.99E-05</td>
</tr>
</tbody>
</table>

***PAH = Polycyclic Organic Matter (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

| Potential Emission of Total HAPs (tons/yr): | 7.97E-03 |
| Worst HAP (Benzene): | 3.93E-03 |
Company Name: Steel Dynamics Heartland, LLC
Address City IN Zip: 455 West Industrial Drive, Terre Haute, Indiana 47802
Permit Number: T167-40187-00120
Reviewer: Jorge Cirnigliaro
Date: January 2019

Maximum Annual Throughput Capacity: 18,870 gal/yr

Emission Factors (AP 42 Section 5.2, "Transportation and Marketing of Petroleum Liquids", 6/08 - Table 5.2-7):

- Displacement Losses (uncontrolled): 11.0 lb/1000 gal
- Displacement Losses (controlled): 1.1 lb/1000 gal
- Spillage: 0.7 lb/1000 gal

VOC Emissions:
- Displacement Losses (uncontrolled): 0.10 ton/yr
- Spillage: 0.01 ton/yr

GL-10: 0.11 ton/yr

Notes:
Emission Factors for VOC is also for total organic emissions because the methane and ethane content of gasoline evaporative emissions is negligible.
The tanks are not equipped with vapor recovery; therefore, all emissions are uncontrolled.

Methodology:
VOC Emissions (ton/yr) = Emission Factor (lb/1000 gal) x Annual Throughput (gal/yr) / 1000 / 2000 lb/ton
### Appendix A: Emissions Calculations

#### Welding and Thermal Cutting

**Company Name:** Steel Dynamics Heartland, LLC  
**Address City IN Zip:** 455 West Industrial Drive, Terre Haute, Indiana 47802  
**Permit Number:** T167-40187-00120  
**Reviewer:** Jorge Cirnigliaro  
**Date:** January 2019

#### Welding Station Emissions

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>Number of Stations</th>
<th>Max. electrode consumption per station (lbs/hr)</th>
<th>EMISSION FACTORS* (lb pollutant/lb electrode)</th>
<th>EMISSIONS (lbs/hr)</th>
<th>HAPS (lbs/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>PM/PM10/PM2.5 Mn Ni Cr</td>
<td>PM/PM10/PM2.5 Mn Ni Cr</td>
<td></td>
</tr>
<tr>
<td>Metal Inert Gas (MIG) (carbon steel)</td>
<td>6</td>
<td>3</td>
<td>0.0055 0.0005</td>
<td>0.099 0.009 0.000 0 0.009</td>
<td></td>
</tr>
<tr>
<td>Stick (E7018 electrode)</td>
<td>2</td>
<td>1</td>
<td>0.0211 0.0009</td>
<td>0.042 0.002 0.000 0 0.002</td>
<td></td>
</tr>
<tr>
<td>Tungsten Inert Gas (TIG) (carbon steel)</td>
<td>1</td>
<td>1</td>
<td>0.0055 0.0005</td>
<td>0.006 0.001 0.000 0 0.001</td>
<td></td>
</tr>
</tbody>
</table>

#### Flame Cutting Emissions

<table>
<thead>
<tr>
<th>FLAME CUTTING</th>
<th>Number of Stations GL-10</th>
<th>Max. Metal Thickness Cut (in.)</th>
<th>Max. Metal Cutting Rate (in./minute)</th>
<th>EMISSION FACTORS* (lb pollutant/1,000 inches cut, 1&quot; thick)**</th>
<th>EMISSIONS (lbs/hr)</th>
<th>HAPS (lbs/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PM/PM10/PM2.5 Mn Ni Cr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxyacetylene</td>
<td>6</td>
<td>1.5</td>
<td>3</td>
<td>0.1622 0.0005 0.0001 0.0003</td>
<td>0.263 0.001 0.000 0.000 0.001</td>
<td></td>
</tr>
<tr>
<td>Plasma**</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>0.0039</td>
<td>0.003 0.000 0.000 0.000 0.000</td>
<td></td>
</tr>
</tbody>
</table>

#### Emission Totals

<table>
<thead>
<tr>
<th>Emissions, lbs/hr</th>
<th>PM/PM10/PM2.5</th>
<th>Mn</th>
<th>Ni</th>
<th>Cr</th>
<th>HAPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Emissions</td>
<td>0.41</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Potential Emissions</td>
<td>9.91</td>
<td>0.29</td>
<td>0.00</td>
<td>0.01</td>
<td>0.31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potential Emissions, tons/year</th>
<th>PM/PM10/PM2.5</th>
<th>Mn</th>
<th>Ni</th>
<th>Cr</th>
<th>HAPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.81</td>
<td>0.05</td>
<td>7.10E-04</td>
<td>2.13E-03</td>
<td>0.06</td>
<td></td>
</tr>
</tbody>
</table>

**Methodology:**

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick. Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min/hr.)(emission factor, lb pollutant/lb 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/lb cut, 8 mm thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, tons/yr = emissions, lbs/hr x 24 hrs/day

Emissions, lbs/day = emissions, lbs/hr x 8,760 hrs/year x 1 ton/2,000 lbs

**Note:** Pickle line welding is resistive welding, a trivial activity per 2-7-1. The portable generators/welders are also a trivial activity per 2-7-1.
## Electrostatic Oilers

### From CRP-1 MSDS data sheet, VOC content is 0.44 lb/gal or 6.1% by volume

- Density is 7.5 lb/gal
- From 1 gal min oil
- X 0.44 lb VOC
- = 0.0587 lb VOC

<table>
<thead>
<tr>
<th>From</th>
<th>mg oil</th>
<th>steel thickness</th>
<th>ton steel</th>
<th>ton VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>GL-10</td>
<td>1 g oil</td>
<td>1000 mg oil</td>
<td>4.5/1 m² steel</td>
<td>Z ton steel</td>
</tr>
<tr>
<td>9760 hr</td>
<td>1 lb oil</td>
<td>453.56 g oil</td>
<td>0.0587 lb VOC</td>
<td>1 ton VOC</td>
</tr>
</tbody>
</table>

\[ \text{eq. 1)} \]

\[ 2.55088 \times 10^{-6} \times (Y/T) \times Z \text{ ton VOC/year} \]

### From source:

<table>
<thead>
<tr>
<th>Line</th>
<th>mg oil</th>
<th>steel thickness</th>
<th>ton steel</th>
<th>ton VOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM-1</td>
<td>500</td>
<td>0.01</td>
<td>79</td>
<td>10.08</td>
</tr>
<tr>
<td>PL-1</td>
<td>350</td>
<td>0.05</td>
<td>300</td>
<td>5.36</td>
</tr>
<tr>
<td>GL-1</td>
<td>250</td>
<td>0.01</td>
<td>70</td>
<td>4.46</td>
</tr>
<tr>
<td>Slitter</td>
<td>250</td>
<td>0.01</td>
<td>8.22</td>
<td>0.52</td>
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</tbody>
</table>

**SUM**

<p>| | | |</p>
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<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>20.42</td>
</tr>
</tbody>
</table>

\[10.08 \text{ ton VOC/yr for nested 1/28} \]

\[10.35 \text{ ton VOC/yr for non-nested} \]

---

*NOTE: Per the source, there is no oiler on RCM-1 (which was in original application.)*
Appendix A: Emission Calculations

Miscellaneous Containers

VOC Calculations

Company Name: Steel Dynamics Heartland, LLC
Address City IN Zip: 455 West Industrial Drive, Terre Haute, Indiana 47802
Permit Number: T167-40187-00120
Reviewer: Jorge Cimigliaro
Date: January 2019

Parts washers: usage was 1495 gallons in 2012 of Crystal Clean Premium
Per MSDS data sheet, Crystal Clean Premium is 100 % VOC (mineral oil) at 6.5-6.7 lb/gal VOC.

\[
\begin{align*}
\text{1495 gal} & \times \frac{6.7 \text{ lb VOC}}{\text{gal}} \times 1 \frac{\text{ton VOC}}{2000 \text{ lb VOC}} = 5.01 \text{ ton VOC} \text{ year} \\
\text{Stencil ink: DPI-201} & \text{VOC: 792g/liter} \\
30 \text{ gal} & \times 792 \frac{\text{g VOC}}{\text{liter}} \times 3.7854 \frac{\text{liter}}{\text{gal}} \times 1 \frac{\text{lb}}{453.56 \text{ g}} \times 1 \frac{\text{ton}}{2000 \text{ lb}} = 0.10 \text{ ton VOC} \text{ year} \\
\text{GL-10 Stencil cleaner: JAM 4500} & \text{VOC: 806g/liter} \\
10 \text{ gal} & \times 806 \frac{\text{g VOC}}{\text{liter}} \times 3.7854 \frac{\text{liter}}{\text{gal}} \times 1 \frac{\text{lb}}{453.56 \text{ g}} \times 1 \frac{\text{ton}}{2000 \text{ lb}} = 0.03 \text{ ton VOC} \text{ year} \\
\text{Denatured alc.:} & \text{VOC: 792g/liter} \\
52 \text{ gal} & \times 792 \frac{\text{g VOC}}{\text{liter}} \times 3.7854 \frac{\text{liter}}{\text{gal}} \times 1 \frac{\text{lb}}{453.56 \text{ g}} \times 1 \frac{\text{ton}}{2000 \text{ lb}} = 0.17 \text{ ton VOC} \text{ year} \\
\text{Cutting coolant (aqueous) UL SY-1150} & 1792 \text{ gal/yr} \text{ assume conservatively 806 g/liter of VOC} \\
1792 \text{ gal} & \times 792 \frac{\text{g VOC}}{\text{liter}} \times 3.7854 \frac{\text{liter}}{\text{gal}} \times 1 \frac{\text{lb}}{453.56 \text{ g}} \times 1 \frac{\text{ton}}{2000 \text{ lb}} = 0.01 \text{ ton VOC} \text{ year} \\
\text{TOTAL:} & \text{5.32 ton VOC} \text{ year}
\end{align*}
\]
Unpaved Roads at Industrial Site
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 (11/2006).

Vehicle Information (provided by source)

<table>
<thead>
<tr>
<th>Type</th>
<th>Maximum number of vehicles</th>
<th>Number of one-way trips per day per vehicle</th>
<th>Maximum trips per day (trip/day)</th>
<th>Maximum Weight Loaded (tons/trip)</th>
<th>Total Weight driven per day (ton/day)</th>
<th>Maximum one-way distance (feet/trip)</th>
<th>Maximum one-way distance (miles/trip)</th>
<th>Maximum one-way miles (miles/day)</th>
<th>Maximum one-way miles (miles/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle (entering plant)</td>
<td>70.0</td>
<td>1.0</td>
<td>70.0</td>
<td>20.0</td>
<td>1400.0</td>
<td>2436</td>
<td>0.461</td>
<td>32.3</td>
<td>11787.8</td>
</tr>
<tr>
<td>Vehicle (leaving plant)</td>
<td>70.0</td>
<td>1.0</td>
<td>70.0</td>
<td>40.0</td>
<td>2800.0</td>
<td>2436</td>
<td>0.461</td>
<td>32.3</td>
<td>11787.8</td>
</tr>
<tr>
<td>Totals</td>
<td>140.0</td>
<td>2400.0</td>
<td>64.6</td>
<td>8.2</td>
<td>4200.0</td>
<td>23575.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average Vehicle Weight Per Trip = 30.0 tons/trip
Average Miles Per Trip = 0.46 miles/trip

Unmitigated Emission Factor, $E_f = \text{GL-10}$

\[
\begin{align*}
\frac{\text{PM}}{\text{PM}_{10}} &= 4.9 \quad 1.5 \quad 0.15 \\
\frac{s}{s} &= 6.0 \quad 6.0 \quad 6.0 \\
\frac{a}{a} &= 0.7 \quad 0.9 \quad 0.9 \\
\frac{W}{W} &= 30.0 \quad 30.0 \quad 30.0 \\
\frac{b}{b} &= 0.45 \quad 0.45 \quad 0.45
\end{align*}
\]

where $k = \text{particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)}$
$s = \text{mean } % \text{ silt content of unpaved roads}$
$a = \text{constant (AP-42 Table 13.2.2-2 for Industrial Roads)}$
$W = \text{average vehicle weight (provided by source)}$
$b = \text{constant (AP-42 Table 13.2.2-2 for Industrial Roads)}$

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E \times \frac{(365 - P)/365}{\text{Equation 2 from AP-42 13.2.2}}$

Mitigated Emission Factor, $E_{ext} = E \times (\frac{[365 - P]/365}{125 \text{ days of rain greater than or equal to } 0.01 \text{ inches (see Fig. 13.2.2-1)}})$

Unmitigated Emission Factor, $E = \text{GL-10}$

<table>
<thead>
<tr>
<th>Process</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM (After Control) (tons/yr)</th>
<th>Mitigated PTE of PM (After Control) (tons/yr)</th>
<th>Mitigated PTE of PM (After Control) (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle (entering plant)</td>
<td>32.95</td>
<td>8.78</td>
<td>0.88</td>
<td>16.47</td>
<td>4.39</td>
</tr>
<tr>
<td>Vehicle (leaving plant)</td>
<td>32.95</td>
<td>8.78</td>
<td>0.88</td>
<td>16.47</td>
<td>4.39</td>
</tr>
<tr>
<td>Totals</td>
<td>65.89</td>
<td>17.56</td>
<td>1.76</td>
<td>32.95</td>
<td>8.78</td>
</tr>
</tbody>
</table>
### Paved Roads at Industrial Site

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

**Vehicle Information (provided by source)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Maximum number of vehicles per day</th>
<th>Number of one-way trips per day per vehicle</th>
<th>Maximum trips per day (trip/day)</th>
<th>Maximum Weight Loaded (ton/trip)</th>
<th>Total Weight driven per day (ton/day)</th>
<th>Maximum one-way distance (feet/trip)</th>
<th>Maximum one-way distance (miles/day)</th>
<th>Maximum one-way miles (miles/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle (entering plant) (one-way trip)</td>
<td>85.0</td>
<td>1.0</td>
<td>85.0</td>
<td>20.0</td>
<td>1700.0</td>
<td>649.0</td>
<td>55.2</td>
<td>20148.6</td>
</tr>
<tr>
<td>Vehicle (leaving plant) (one-way trip)</td>
<td>65.0</td>
<td>1.0</td>
<td>85.0</td>
<td>40.0</td>
<td>3400.0</td>
<td>429.0</td>
<td>55.2</td>
<td>20148.6</td>
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<tr>
<td>Totals</td>
<td>170.0</td>
<td>5100.0</td>
<td>110.4</td>
<td>40297.2</td>
<td>110.4</td>
<td>40297.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Average Vehicle Weight Per Trip**: 30.0 tons/trip

**Average Miles Per Trip**: 0.65 miles/trip

**Unmitigated Emission Factor, $E_f$ = GL-10**

\[
\text{PM} = \text{PM}_{10} = \text{PM}_{2.5}
\]

\[
\begin{align*}
\text{where } k &= 0.011, 0.0022, 0.00054 \text{ lb/VMT} \\
W &= 30.0, 30.0, 30.0 \text{ tons} = \text{average vehicle weight (provided by source)} \\
sl &= 9.7, 9.7, 9.7 \text{ g/m}^2 = \text{silt loading value for paved roads}
\end{align*}
\]

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $E_{ext} = E_f \times [1 - (p/4N)]$ (Equation 2 from AP-42 13.2.1.1)

**Mitigated Emission Factor, $E_{ext} = 2.793$ PM, 0.559 PM$_{10}$, 0.137 PM$_{2.5}$ (b/mile)**

**Dust Control Efficiency = 50%** (pursuant to control measures outlined in fugitive dust control plan)

### Methodology

**Total Weight driven per day (ton/day)**

\[
\text{Total Weight driven per day (ton/day)} = \text{Maximum Weight Loaded (tons/trip)} \times \text{Maximum trips per day (trip/day)}
\]

**Maximum one-way distance (miles/day)**

\[
\text{Maximum one-way distance (miles/day)} = \text{Maximum one-way distance per trip (feet/trip)} \times \text{Maximum trips per year (trip/day)}
\]

**Average Vehicle Weight Per Trip (ton/trip)**

\[
\text{Average Vehicle Weight Per Trip (ton/trip)} = \frac{\text{Total Weight driven per day (ton/day)}}{\text{Maximum trips per year (trip/day)}}
\]

**Average Miles Per Trip (miles/trip)**

\[
\text{Average Miles Per Trip (miles/trip)} = \frac{\text{Total Weight driven per day (ton/day)}}{\text{Maximum one-way distance (miles/day)}}
\]

**Mitigated PTE (Before Control) (tons/yr)**

\[
\text{Mitigated PTE (Before Control) (tons/yr)} = \text{Maximum one-way miles (miles/yr)} \times \text{Mitigated Emission Factor (b/mile)} \times \frac{1}{2000 \text{ lbs}}
\]

**Mitigated PTE (After Control) (tons/yr)**

\[
\text{Mitigated PTE (After Control) (tons/yr)} = \text{Mitigated PTE (Before Control) (tons/yr)} \times \text{Dust Control Efficiency}
\]
June 11, 2019

Larry Fifer
Steel Dynamics Heartland, LLC
455 W Industrial Dr.
Terre Haute, IN 47802

Re: Public Notice
Steel Dynamics Heartland, LLC
Permit Level: Title V Renewal
Permit Number: 167-40187-00120

Dear Mr. Fifer:

Enclosed is a copy of your draft Title V Operating Permit Renewal, Technical Support Document, emission calculations, and the Public Notice.

The Public Notice period will begin the date the Notice is published on the IDEM Official Public Notice website. Publication has been requested and is expected within 2-3 business days. You may check the exact Public Notice begins and ends date here: https://www.in.gov/idem/5474.htm

Please note that as of April 17, 2019, IDEM is no longer required to publish the notice in a newspaper.

OAQ has submitted the draft permit package to the Vigo County Public Library, 1 Library Square in Terre Haute, IN. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Jorge Cirnigliaro, 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 4-5174 or dial (317) 234-5174.

Sincerely,

Theresa Weaver
Theresa Weaver
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover Letter 4/12/19
June 11, 2019

To: Vigo County Public Library

From: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

Subject: Important Information to Display Regarding a Public Notice for an Air Permit

Applicant Name: Steel Dynamics Heartland, LLC
Permit Number: 167-40187-00120

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
- 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 Smiddle-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 updated 4/2019
Notice of Public Comment

June 11, 2019
Steel Dynamics Heartland, LLC
167-40187-00120

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 posted on IDEM’s Public Notice website at https://www.in.gov/idem/5474.htm.

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.
AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
DRAFT INDIANA AIR PERMIT

June 11, 2019

A 30-day public comment period has been initiated for:

Permit Number:  167-40187-00120
Applicant Name: Steel Dynamics Heartland, LLC
Location:  Terre Haute, Vigo County, Indiana

The public notice, draft permit and technical support documents can be accessed via the IDEM Air Permits Online site at:
http://www.in.gov/ai/appfiles/idem-caats/

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management
Office of Air Quality, Permits Branch
100 North Senate Avenue
Indianapolis, IN  46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.
### Mail Code 61-53

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<td>Larry Fifer Steel Dynamics Heartland LLC 455 W Industrial Dr Terre Haute IN 47802 (Source CAATS)</td>
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<td>Roberto Bohrer Director Steel Dynamics Heartland LLC 455 W Industrial Dr Terre Haute IN 47802 (RO CAATS)</td>
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<td>Vigo County Board of Commissioners County Annex, 121 Oak Street Terre Haute IN 47807 (Local Official)</td>
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<td>Terre Haute City Council and Mayors Office 17 Harding Ave Terre Haute IN 47807 (Local Official)</td>
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<td>J.P. Roehm PO Box 303 Clinton IN 47842 (Affected Party)</td>
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<td>Ms. Jaime K. Saylor Hatchett &amp; Hauck LLP 150 West Market Street, Suite 200 Indianapolis IN 46204 (Attorney)</td>
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<td>Mr. Mark Fitton Tribune-Star 222 S. 7th Street Terre Haute IN 47807 (Affected Party)</td>
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<td>The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50,000 per occurrence. The maximum indemnity payable on Express mail merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See <strong>Domestic Mail Manual R900, S913, and S921</strong> for limitations of coverage on insured and COD mail. See <strong>International Mail Manual</strong> for limitations of coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.</td>
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