



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To: Interested Parties

Date: September 16, 2014

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

Source Name: Stemwood Manufacturing LLC

Permit Level: MSOP

Permit Number: 043-34319-00046

Source Location: 815 Wernsing Rd, Jasper, Indiana 47547

Type of Action Taken: Initial Permit

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>
To view the document, select Search option 3, then enter permit 34319.

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

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

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

(continues on next page)

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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



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Minor Source Operating Permit OFFICE OF AIR QUALITY

**StemWood Manufacturing, L.L.C.
2710 Grant Line Road
New Albany, Indiana 47150**

(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.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No. M043-34319-00046

Issued by:

Nathan C. Bell, Section Chief
Permits Branch
Office of Air Quality

Issuance Date: September 16, 2014

Expiration Date: September 16, 2019

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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 and A.2 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 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary wood veneer and lumber manufacturing plant.

Source Address:	2710 Grant Line Road, New Albany, Indiana 47150
General Source Phone Number:	812-945-6646
SIC Codes:	2421 (Sawmills and Planing Mills, General) 2435 (Hardwood Veneer and Plywood)
County Location:	Floyd
Source Location Status:	Nonattainment for PM _{2.5} standard Attainment for all other criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) wood veneer and lumber manufacturing plant, with a maximum bottleneck throughput of 1,000 board-feet per hour, consisting of the following woodworking equipment:
 - (1) One (1) debarker for removing bark from fresh logs, identified as Unit 1, constructed in 1994, uncontrolled and exhausting outdoors.
 - (2) One (1) 7-foot bandmill head rig for sawing logs, identified as Unit 2a, constructed in 1968, with sawdust collected by Cyclone #1, and exhausting outdoors.
 - (3) One (1) edger for trimming edges of lumber lengthwise, identified as Unit 2b, constructed in 1994, uncontrolled and exhausting indoors.
 - (4) One (1) double end trim saw for trimming ends of boards to standard length, identified as Unit 2c, constructed prior to 1989, uncontrolled and exhausting indoors.
 - (5) One (1) sawmill hog for pulverizing wood waste into chips, identified as Unit 2d, constructed in 2001, with sawdust collected by Cyclone #1, and exhausting outdoors.
 - (6) One (1) slicer for slicing flitch into veneer sheets, identified as Unit 3b, constructed in 1967, with negligible particulate emissions.
 - (7) One (1) split saw for sawing partially sliced flitch in two, identified as Unit 3c, constructed in 2007, uncontrolled and exhausting indoors.

- (8) One (1) slicer for slicing flitch into veneer sheets, identified as Unit 3d, constructed in 2005, with negligible particulate emissions.
- (9) One (1) half-round slicer for slicing flitch into veneer sheets, identified as Unit 3e, constructed in 1949, with negligible particulate emissions.
- (10) One (1) channel saw for channeling flitch so that the flitch fastens to the half-round slicer (Unit 3e), identified as Unit 3f, constructed in 2005, uncontrolled and exhausting indoors.
- (11) One (1) veneer mill clipper for clipping out veneer defects, identified as Unit 3h, constructed in 1946, with negligible particulate emissions.
- (12) One (1) veneer mill hog for chopping scrap sheets of veneer into chips, identified as Unit 3i, constructed in 2008, with sawdust collected by Cyclone #2, and exhausting outdoors.
- (13) One (1) radial arm crating saw for sawing crating material to size, identified as Unit 3j, constructed in 1968, with sawdust collected by Bag Collector #1, and exhausting indoors.
- (14) Two (2) CBT clippers for clipping veneer edges lengthwise, identified as Unit 3k and Unit 3l, respectively, constructed in 2007, with negligible particulate emissions.
- (15) Two (2) CBT end clippers for clipping veneer bundles to length, identified as Unit 3m and Unit 3n, respectively, constructed in 2007, with negligible particulate emissions.
- (16) One (1) CBT veneer hog for pulverizing dry veneer waste into chips, identified as Unit 3o, constructed in 2007, with sawdust collected by Cyclone #3, and exhausting outdoors.
- (17) One (1) veneer press for flattening buckled or high-moisture content veneer, identified as Unit 3p, constructed in 1962, uncontrolled and exhausting indoors.
- (18) One (1) veneer knife grinder for grinding a sharp edge on used veneer knives and bars, identified as Unit 3q, constructed in 1967, uncontrolled and exhausting indoors.
- (19) One (1) saw for re-sawing backing boards, identified as the green shed re-saw, Unit 6a, constructed in 1994, with sawdust collected by Cyclone #4, and exhausting outdoors.
- (20) One (1) radial arm saw for miscellaneous cutting of wood to length, identified as the green shed radial arm saw, Unit 6b, constructed prior to 1989, with sawdust collected by Cyclone #4, and exhausting outdoors.
- (21) One (1) straight line rip saw for miscellaneous cutting wood to width, identified as the green shed straight line rip saw, Unit 6c, constructed prior to 1989, with sawdust collected by Cyclone #4, and exhausting outdoors.
- (22) One (1) planer for surfacing lumber to customer specifications, identified as the green shed planer, Unit 6d, constructed in 2010, with sawdust collected by Cyclone #4, and exhausting outdoors.

- (23) One (1) radial arm saw for cutting defects off the ends of boards, identified as the dry shed radial arm saw, Unit 6e, constructed in 2000, with sawdust collected by Bag Collector #2, and exhausting indoors.
 - (24) One (1) straight line rip saw for cutting defects off the edges of boards, identified as the dry shed straight line rip saw, Unit 6f, constructed in 2000, with sawdust collected by Bag Collector #2, and exhausting indoors.
 - (25) One (1) sawmill fluting saw for sawing a channel in sticks used for stacking lumber, identified as Unit 6g, constructed prior to 1989, with sawdust collected by Cyclone #1, and exhausting outdoors.
 - (26) One (1) bandsaw for sawing scrap boards into paddles for drag chain conveyors, identified as the oil room bandsaw, Unit 6h, constructed prior to 1989, uncontrolled and exhausting indoors.
- (b) Twelve (12) vats for soaking and heating a typical volume of 4,000 board-feet per day of flitch for slicing, identified as Units 3a1 through 3a12, constructed from 1945 to 1968, each with a maximum capacity of 10,000-gallons of water. Air emissions from these units are assumed to be negligible.
 - (c) Two (2) kilns for drying air-dried lumber to 8% moisture content, identified as Unit 4a1 and 4a2, respectively, constructed in 1949, each with a maximum bottleneck throughput of 30,000 board-feet per month, uncontrolled and exhausting outside via roof vents.
 - (d) Two (2) kilns for drying air-dried lumber to 8% moisture content, identified as Unit 4b1 and 4b2, respectively, constructed in 1955, each with a maximum bottleneck throughput of 45,000 board-feet per month, uncontrolled and exhausting outside via roof vents.
 - (e) One (1) veneer dryer for drying sheets of veneer to 10% moisture content, identified as Unit 3g, constructed in 1993, with a maximum throughput of 39 cubic feet per hour, uncontrolled and exhausting outdoors via roof vents.
 - (f) One (1) wood-fired boiler for producing steam, fired by wood scrap, identified as Unit 5, constructed in 1960, with a maximum heat input capacity of 14.43 MMBtu/hour, uncontrolled and exhausting to Stack 1.

Note: The Permittee will only combust clean wood in the wood-fired boiler. Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

This unit is considered an affected source under 40 CFR 63, Subpart JJJJJJ.

- (g) One (1) ash conveyance and disposal system for transferring ash from the boiler to hoppers, identified as Unit 7, constructed in 1960 and reconstructed in 2000, with a potential ash capacity of 1,303.16 tons per year, uncontrolled and exhausting outdoors. The ash from the hoppers is manually discharged into a wheelbarrow and transferred to an ash dumpster. Approximately 3 cubic yards of ash are produced per month and applied to the ground on the property.
- (h) One (1) electric drill press for drilling bolt holes in wood paddles for drag chain conveyors, identified as the oil room drill press, Unit 6i, constructed prior to 1989, with a typical operation time of one (1) hour per month. Air emissions from this unit are assumed to be negligible.

- (i) One (1) autoclave for steaming lumber in a closed vessel for coloration, identified as Unit 6j, constructed in 1966. Air emissions from this unit are assumed to be negligible.
- (j) One (1) de-aerator tank for collecting condensate return and pre-heating new boiler water, identified as Unit 6k, constructed in 1966. Air emissions from this unit are assumed to be negligible.
- (k) One (1) condensate return tank for collecting veneer mill condensate and pumping it to the de-aerator tank, identified as Unit 6l, constructed prior to 1989. Air emissions from this unit are assumed to be negligible.
- (l) Three (3) electric air compressors for air-powered tools and other air needs when the mill is not operating, identified as air compressor #1 (Unit 6m), air compressor #2 (Unit 6n), and air compressor #3 (Unit 6o), constructed in 1998, 1998, and 1988, respectively, with maximum capacities of 75 HP, 30 HP, and 75 HP, respectively. Air emissions from these units are assumed to be negligible.
- (m) Three (3) natural gas-fired space heaters, identified as natural gas heater sawmill #1 (Unit 6p), natural gas heater sawmill #2 (Unit 6q), and natural gas heater oil room (Unit 6r), each constructed prior to 1983, with maximum capacities of 0.16 MMBTU/hr, 0.20 MMBTU/hr, and 0.10 MMBTU/hr, respectively, uncontrolled and exhausting indoors.
- (n) Welding and cutting stations, including three (3) metal inert gas welding stations, each with a maximum electrode consumption of 3 pounds per hour, one (1) oxyacetylene flame cutting station with a maximum metal thickness cut of 1.5 inches and a maximum metal cutting rate of 20 inches per minute, and one (1) plasma flame cutting station with a maximum metal thickness cut of 1.5 inches and a maximum metal cutting rate of 20 inches per minute, uncontrolled and exhausting indoors.
- (o) One (1) degreaser with a maximum usage of 0.004 gallons of kerosene per unit, at a rate of 1 unit per hour, equipped with a remote solvent reservoir, and exhausting indoors.
- (p) One (1) 290-gallon gasoline storage tank installed in 1990, located outdoors and above ground with a retention tank.

This unit is considered an affected facility under 40 CFR 63, Subpart CCCCCC.

- (q) One (1) 550-gallon diesel storage tank, installed prior to 1989, located outdoors and above ground with a retention tank.
- (r) Paved and unpaved roads.
- (s) Conveyors.
 - (1) One (1) uncovered, outdoor conveyor for logs, identified as the log conveyor.
 - (2) One (1) uncovered, outdoor conveyor to convey bark to a 40-ft trailer, identified as the bark conveyor.
 - (3) One (1) uncovered, outdoor conveyor for conveying debarked logs to the sawmill, identified as the debarked log conveyor.
 - (4) One (1) indoor conveyor for conveying slabs and trimmings down a chute to the sawmill hog, identified as the sawmill trimmings conveyor.

- (5) One (1) covered, outdoor, drag chain conveyor for conveying clean wood chips from the sawmill to the boiler room, identified as the double-wide conveyor.
- (6) One (1) indoor conveyor for conveying solid flitch to the veneer mill, identified as the flitch conveyor.
- (7) One (1) indoor subfloor conveyor for conveying clippings to the veneer mill hog, identified as the veneer clippings conveyor.
- (8) One (1) covered, outdoor, drag chain conveyor for conveying clean wood chips from the veneer mill to the boiler room, identified as the veneer-to-boiler conveyor.
- (9) One (1) indoor, shaker/vibrating conveyor for separating usable wood chips by size and conveying them to the boiler feed bin, identified as the shaker conveyor.
- (10) One (1) indoor, drag chain conveyor for conveying clean wood chips to the auger conveyor, identified as the pre-auger conveyor.
- (11) One (1) indoor, computer-controlled auger conveyor for conveying clean wood chips into the boiler blower feeder, identified as the auger conveyor.
- (12) One (1) return conveyor running from the boiler wood chip room to the sawmill for conveying wood scrap generated by the wood manufacturing processes that is too large in size to pass through the vibrating conveyor screen back to the sawmill hog to be chopped again into smaller fragments.

SECTION B GENERAL CONDITIONS

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

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 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, M043-34319-00046, 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, 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

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

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

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

B.7 Duty to Provide Information

- (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 Annual Notification [326 IAC 2-6.1-5(a)(5)]

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.9 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, 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 Permittee shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (c) To the extent the 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.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to M043-34319-00046 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

B.11 Termination of Right to Operate [326 IAC 2-6.1-7(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 one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.12 Permit Renewal [326 IAC 2-6.1-7]

- (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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least one hundred twenty (120) days 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 2-6.1 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 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 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

- (c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.14 Source Modification Requirement

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

B.15 Inspection and Entry

[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.17 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.
- (b) 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.18 Credible Evidence [326 IAC 1-1-6]

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

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

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

C.2 Permit Revocation [326 IAC 2-1.1-9]

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

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

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

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

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

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

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

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

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

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

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

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

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

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.9 Performance Testing [326 IAC 3-6]

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

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

no later than thirty-five (35) days prior to the intended test date.
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

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

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.11 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.12 Instrument Specifications [326 IAC 2-1.1-11]

- (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

C.13 Response to Excursions or Exceedances

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

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test

- (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.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.15 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.16 General Record Keeping Requirements [326 IAC 2-6.1-5]

-
- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
 - (b) Unless otherwise specified in this permit, 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 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (b) 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.
- (c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. 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.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) wood veneer and lumber manufacturing plant, with a maximum bottleneck throughput of 1,000 board-feet per hour, consisting of the following woodworking equipment:
 - (2) One (1) 7-foot bandmill head rig for sawing logs, identified as Unit 2a, constructed in 1968, with sawdust collected by Cyclone #1, and exhausting outdoors.
 - (5) One (1) sawmill hog for pulverizing wood waste into chips, identified as Unit 2d, constructed in 2001, with sawdust collected by Cyclone #1, and exhausting outdoors.
 - (13) One (1) radial arm crating saw for sawing crating material to size, identified as Unit 3j, constructed in 1968, with sawdust collected by Bag Collector #1, and exhausting indoors.
 - (19) One (1) saw for re-sawing backing boards, identified as the green shed re-saw, Unit 6a, constructed in 1994, with sawdust collected by Cyclone #4, and exhausting outdoors.
 - (20) One (1) radial arm saw for miscellaneous cutting of wood to length, identified as the green shed radial arm saw, Unit 6b, constructed prior to 1989, with sawdust collected by Cyclone #4, and exhausting outdoors.
 - (21) One (1) straight line rip saw for miscellaneous cutting wood to width, identified as the green shed straight line rip saw, Unit 6c, constructed prior to 1989, with sawdust collected by Cyclone #4, and exhausting outdoors.
 - (22) One (1) planer for surfacing lumber to customer specifications, identified as the green shed planer, Unit 6d, constructed in 2010, with sawdust collected by Cyclone #4, and exhausting outdoors.
 - (23) One (1) radial arm saw for cutting defects off the ends of boards, identified as the dry shed radial arm saw, Unit 6e, constructed in 2000, with sawdust collected by Bag Collector #2, and exhausting indoors.
 - (24) One (1) straight line rip saw for cutting defects off the edges of boards, identified as the dry shed straight line rip saw, Unit 6f, constructed in 2000, with sawdust collected by Bag Collector #2, and exhausting indoors.
 - (25) One (1) sawmill fluting saw for sawing a channel in sticks used for stacking lumber, identified as Unit 6g, constructed prior to 1989, with sawdust collected by Cyclone #1, and exhausting outdoors.

(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 2-6.1-5(a)(1)]

D.1.1 Particulate [326 IAC 6-3-2]

-
- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the edger, identified as Unit 2b, shall not exceed 7.14 pounds per hour, when operating at a process weight rate of 2.29 tons per hour.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the double end trim saw, identified as Unit 2c, shall not exceed 7.14 pounds per hour, when operating at a process weight rate of 2.29 tons per hour.
- (c) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the oil room bandsaw, identified as Unit 6h shall not exceed 7.14 pounds per hour, when operating at a process weight rate of 2.29 tons per hour.

The pounds per hour limitations were calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

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

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

Compliance Determination Requirements

D.1.3 Particulate Control

In order to ensure that the woodworking operations listed in the table below are each exempt from the requirements of 326 IAC 6-3-2, the particulate controls associated with these woodworking operations shall be in operation and control emissions from the associated woodworking operations at all times the units are in operation.

Emission Unit	Control Device
Bandmill Head Rig (2a)	Cyclone #1
Sawmill Hog (2d)	Cyclone #1
Radial Arm crating saw (3j)	Bag Collector #1
Green shed resaw (6a)	Cyclone #4
Green shed radial arm saw (6b)	Cyclone #4
Green shed straight line rip saw (6c)	Cyclone #4
Green shed planer (6d)	Cyclone #4
Dry shed radial arm saw (6e)	Bag Collector #2
Dry shed straight line rip saw (6f)	Bag Collector #2
Sawmill Fluting saw (6g)	Cyclone #1

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (f) One (1) wood-fired boiler for producing steam, fired by wood scrap, identified as Unit 5, constructed in 1960, with a maximum heat input capacity of 14.43 MMBtu/hour, uncontrolled and exhausting to Stack 1.

Note: The Permittee will only combust clean wood in the wood-fired boiler. Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

This unit is considered an affected source under 40 CFR 63, Subpart JJJJJJ.

(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 2-6.1-5(a)(1)]

D.2.1 Particulate [326 IAC 6-2]

Pursuant to 326 IAC 6-2-3(d) (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the wood-fired boiler (Unit 5) shall in no case exceed 0.8 pounds per MMBtu heat input.

D.2.2 Wood-Fired Boiler Operation

In order to comply with 326 IAC 2-6.1, the Permittee shall only combust clean wood in the wood-fired boiler (Unit 5). Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for the wood-fired boiler (Unit 5) and any associated control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.2.4 Visible Emissions Notations

- (a) Visible emission notations of the one (1) wood-fired boiler stack exhaust 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 reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable responses steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.2.5 Record Keeping Requirements

- (a) To document compliance with Condition D.2.4, the Permittee shall maintain records of daily visible emission notations of the one (1) wood-fired boiler stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).
- (b) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.3

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (m) Three (3) natural gas-fired space heaters, identified as natural gas heater sawmill #1 (Unit 6p), natural gas heater sawmill #2 (Unit 6q), and natural gas heater oil room (Unit 6r), each constructed prior to 1983, with maximum capacities of 0.16 MMBTU/hr, 0.20 MMBTU/hr, and 0.10 MMBTU/hr, respectively, uncontrolled and exhausting indoors.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.3.1 Particulate [326 IAC 6-2]

Pursuant to 326 IAC 6-2-3(e) (Particulate Emission Limitations for Sources of Indirect Heating), the particulate emissions from each of the three (3) natural gas-fired building heaters, identified as Units 6p, 6q, and 6r, respectively, shall not exceed 0.6 pound per MMBtu/hr heat input.

SECTION D.4

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (p) One (1) 290-gallon gasoline storage tank installed in 1990, located outdoors and above ground with a retention tank.

This unit is considered an affected facility under 40 CFR 63, Subpart CCCCCC.

- (q) One (1) 550-gallon diesel storage tank, installed prior to 1989, located outdoors and above ground with a retention tank.

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

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.4.1 Record Keeping Requirements

- (a) Pursuant to 326 IAC 8-9-1(b), the owner or operator of each vessel subject to this rule shall keep all records required by this section for three (3) years unless specified otherwise for the gasoline storage tank and the diesel storage tank. Records required by 326 IAC 8-9-6(b) shall be maintained for the life of the vessel.

The owner or operator of each vessel shall maintain a record and submit to the department a report containing the following information for each vessel:

- (1) The vessel identification number.
 - (2) The vessel dimensions.
 - (3) The vessel capacity.
- (b) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

SECTION E.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (p) One (1) 290-gallon gasoline storage tank installed in 1990, located outdoors and above ground with a retention tank.

This unit is considered an affected facility under 40 CFR 63, Subpart CCCCCC.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

E.1.1 General Provisions Relating to the National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR 63, Subpart A] [326 IAC 20-1]

- (a) Pursuant to 40 CFR 63.11130, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the 290-gallon gasoline storage tank, as specified in Table 3 of 40 CFR Part 63, Subpart CCCCCC, in accordance with the schedule in 40 CFR 63 Subpart CCCCCC.

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

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

E.1.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Category: Gasoline Dispensing Facilities [40 CFR 63, Subpart CCCCCC]

The Permittee shall comply with the following provisions of 40 CFR 63, Subpart CCCCCC (included as Attachment A of this permit), for the 290-gallon gasoline storage tank:

- (1) 40 CFR 63.11110
- (2) 40 CFR 63.11111(a), (b), (e), (f), (h), (j), and (k)
- (3) 40 CFR 63.11112
- (4) 40 CFR 63.11113(b), (c), (f)
- (5) 40 CFR 63.11115(a)
- (6) 40 CFR 63.11116
- (7) 40 CFR 63.11130
- (8) 40 CFR 63.11131
- (9) 40 CFR 63.11132
- (10) Table 3

SECTION E.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (f) One (1) wood-fired boiler for producing steam, fired by wood scrap, identified as Unit 5, constructed in 1960, with a maximum heat input capacity of 14.43 MMBtu/hour, uncontrolled and exhausting to Stack 1.

Note: The Permittee will only combust clean wood in the wood-fired boiler. Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

This unit is considered an affected source under 40 CFR 63, Subpart JJJJJJ.

(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 2-6.1-5(a)(1)]

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

- (a) Pursuant to 40 CFR 63.11235, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the wood-fired boiler (Unit 5), as specified in Table 8 of 40 CFR Part 63, Subpart JJJJJJ, in accordance with the schedule in 40 CFR 63 Subpart JJJJJJ.

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

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

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

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart JJJJJJ (included as Attachment B of this permit), for the wood-fired boiler (Unit 5):

- (1) 40 CFR 63.11193
- (2) 40 CFR 63.11194(a) (b) and (f)
- (3) 40 CFR 63.11196(a)
- (4) 40 CFR 63.11200
- (5) 40 CFR 63.11201(b) and (d)
- (6) 40 CFR 63.11205(a)
- (7) 40 CFR 63.11210(c) and (h)
- (8) 40 CFR 63.11214(b) and (c)
- (9) 40 CFR 63.11223(a) and (b)
- (10) 40 CFR 63.11225(a), (b), (c), (d), (f) and (g)

- (11) 40 CFR 63.11235
- (12) 40 CFR 63.11236
- (13) 40 CFR 63.11237
- (14) Table 2 (Items 6 and 16)
- (15) Table 8

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

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	StemWood Manufacturing, L.L.C.
Address:	2710 Grant Line Road
City:	New Albany, Indiana 47150
Phone #:	812-945-6646
MSOP #:	M043-34319-00046

I hereby certify that StemWood Manufacturing, L.L.C. is : ☐ still in operation.
☐ no longer in operation.
I hereby certify that StemWood Manufacturing, L.L.C. is : ☐ in compliance with the requirements of
MSOP M043-34319-00046.
☐ not in compliance with the requirements of
MSOP M043-34319-00046.

Authorized Individual (typed):
Title:
Signature:
Date:

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

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FAX NUMBER: (317) 233-6865**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO₂, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

**Please note - This form should only be used to report malfunctions
applicable to Rule 326 IAC 1-6 and to qualify for
the exemption under 326 IAC 1-6-4.**

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

Attachment A

Minor Source Operating Permit (MSOP) No: M043-34319-00046

[Downloaded from the eCFR on May 13, 2013]

Electronic Code of Federal Regulations

Title 40: Protection of Environment

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

Subpart CCCCCC—National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

Source: 73 FR 1945, Jan. 10, 2008, unless otherwise noted.

What This Subpart Covers

§ 63.11110 What is the purpose of this subpart?

This subpart establishes national emission limitations and management practices for hazardous air pollutants (HAP) emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF). This subpart also establishes requirements to demonstrate compliance with the emission limitations and management practices.

§ 63.11111 Am I subject to the requirements in this subpart?

(a) The affected source to which this subpart applies is each GDF that is located at an area source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

(b) If your GDF has a monthly throughput of less than 10,000 gallons of gasoline, you must comply with the requirements in § 63.11116.

(c) If your GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in § 63.11117.

(d) If your GDF has a monthly throughput of 100,000 gallons of gasoline or more, you must comply with the requirements in § 63.11118.

(e) An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in § 63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in § 63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years.

(f) If you are an owner or operator of affected sources, as defined in paragraph (a) of this section, you are not required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 as a result of being subject to this subpart. However, you must still apply for and obtain a permit under 40 CFR part 70 or 40 CFR part 71 if you meet one or more of the applicability criteria found in 40 CFR 70.3(a) and (b) or 40 CFR 71.3(a) and (b).

(g) The loading of aviation gasoline into storage tanks at airports, and the subsequent transfer of aviation gasoline within the airport, is not subject to this subpart.

(h) Monthly throughput is the total volume of gasoline loaded into, or dispensed from, all the gasoline storage tanks located at a single affected GDF. If an area source has two or more GDF at separate locations within the area source, each GDF is treated as a separate affected source.

(i) If your affected source's throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold.

(j) The dispensing of gasoline from a fixed gasoline storage tank at a GDF into a portable gasoline tank for the on-site delivery and subsequent dispensing of the gasoline into the fuel tank of a motor vehicle or other gasoline-fueled engine or equipment used within the area source is only subject to § 63.11116 of this subpart.

(k) For any affected source subject to the provisions of this subpart and another Federal rule, you may elect to comply only with the more stringent provisions of the applicable subparts. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the affected source and provisions with which you will comply in your Notification of Compliance Status required under § 63.11124. You also must demonstrate in your Notification of Compliance Status that each provision with which you will comply is at least as stringent as the otherwise applicable requirements in this subpart. You are responsible for making accurate determinations concerning the more stringent provisions, and noncompliance with this rule is not excused if it is later determined that your determination was in error, and, as a result, you are violating this subpart. Compliance with this rule is your responsibility and the Notification of Compliance Status does not alter or affect that responsibility.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4181, Jan. 24, 2011]

§ 63.11112 What parts of my affected source does this subpart cover?

(a) The emission sources to which this subpart applies are gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing GDF that meet the criteria specified in § 63.11111. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this subpart.

(b) An affected source is a new affected source if you commenced construction on the affected source after November 9, 2006, and you meet the applicability criteria in § 63.11111 at the time you commenced operation.

(c) An affected source is reconstructed if you meet the criteria for reconstruction as defined in § 63.2.

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

§ 63.11113 When do I have to comply with this subpart?

(a) If you have a new or reconstructed affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section, except as specified in paragraph (d) of this section.

(1) If you start up your affected source before January 10, 2008, you must comply with the standards in this subpart no later than January 10, 2008.

(2) If you start up your affected source after January 10, 2008, you must comply with the standards in this subpart upon startup of your affected source.

(b) If you have an existing affected source, you must comply with the standards in this subpart no later than January 10, 2011.

(c) If you have an existing affected source that becomes subject to the control requirements in this subpart because of an increase in the monthly throughput, as specified in § 63.11111(c) or § 63.11111(d), you must comply with the standards in this subpart no later than 3 years after the affected source becomes subject to the control requirements in this subpart.

(d) If you have a new or reconstructed affected source and you are complying with Table 1 to this subpart, you must comply according to paragraphs (d)(1) and (2) of this section.

(1) If you start up your affected source from November 9, 2006 to September 23, 2008, you must comply no later than September 23, 2008.

(2) If you start up your affected source after September 23, 2008, you must comply upon startup of your affected source.

(e) The initial compliance demonstration test required under § 63.11120(a)(1) and (2) must be conducted as specified in paragraphs (e)(1) and (2) of this section.

(1) If you have a new or reconstructed affected source, you must conduct the initial compliance test upon installation of the complete vapor balance system.

(2) If you have an existing affected source, you must conduct the initial compliance test as specified in paragraphs (e)(2)(i) or (e)(2)(ii) of this section.

(i) For vapor balance systems installed on or before December 15, 2009, you must test no later than 180 days after the applicable compliance date specified in paragraphs (b) or (c) of this section.

(ii) For vapor balance systems installed after December 15, 2009, you must test upon installation of the complete vapor balance system.

(f) If your GDF is subject to the control requirements in this subpart only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must comply with the standards in this subpart as specified in paragraphs (f)(1) or (f)(2) of this section.

(1) If your GDF is an existing facility, you must comply by January 24, 2014.

(2) If your GDF is a new or reconstructed facility, you must comply by the dates specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) If you start up your GDF after December 15, 2009, but before January 24, 2011, you must comply no later than January 24, 2011.

(ii) If you start up your GDF after January 24, 2011, you must comply upon startup of your GDF.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 35944, June 25, 2008; 76 FR 4181, Jan. 24, 2011]

Emission Limitations and Management Practices

§ 63.11115 What are my general duties to minimize emissions?

Each owner or operator of an affected source under this subpart must comply with the requirements of paragraphs (a) and (b) of this section.

(a) You must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review

of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) You must keep applicable records and submit reports as specified in § 63.11125(d) and § 63.11126(b).

[76 FR 4182, Jan. 24, 2011]

§ 63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

- (1) Minimize gasoline spills;
- (2) Clean up spills as expeditiously as practicable;
- (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(b) You are not required to submit notifications or reports as specified in § 63.11125, § 63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(c) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11113.

(d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4182, Jan. 24, 2011]

§ 63.11117 Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.

(a) You must comply with the requirements in section § 63.11116(a).

(b) Except as specified in paragraph (c) of this section, you must only load gasoline into storage tanks at your facility by utilizing submerged filling, as defined in § 63.11132, and as specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section. The applicable distances in paragraphs (b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(1) Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank.

(2) Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank.

(3) Submerged fill pipes not meeting the specifications of paragraphs (b)(1) or (b)(2) of this section are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit.

(c) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in paragraph (b) of this section, but must comply only with all of the requirements in § 63.11116.

(d) You must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

(e) You must submit the applicable notifications as required under § 63.11124(a).

(f) You must comply with the requirements of this subpart by the applicable dates contained in § 63.11113.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4182, Jan. 24, 2011]

§ 63.11118 Requirements for facilities with monthly throughput of 100,000 gallons of gasoline or more.

(a) You must comply with the requirements in §§ 63.11116(a) and 63.11117(b).

(b) Except as provided in paragraph (c) of this section, you must meet the requirements in either paragraph (b)(1) or paragraph (b)(2) of this section.

(1) Each management practice in Table 1 to this subpart that applies to your GDF.

(2) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(2)(i) and (ii) of this section, you will be deemed in compliance with this subsection.

(i) You operate a vapor balance system at your GDF that meets the requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraph (b)(2)(i)(A) or paragraph (b)(2)(i)(B) of this section.

(c) The emission sources listed in paragraphs (c)(1) through (3) of this section are not required to comply with the control requirements in paragraph (b) of this section, but must comply with the requirements in § 63.11117.

(1) Gasoline storage tanks with a capacity of less than 250 gallons that are constructed after January 10, 2008.

(2) Gasoline storage tanks with a capacity of less than 2,000 gallons that were constructed before January 10, 2008.

(3) Gasoline storage tanks equipped with floating roofs, or the equivalent.

(d) Cargo tanks unloading at GDF must comply with the management practices in Table 2 to this subpart.

(e) You must comply with the applicable testing requirements contained in § 63.11120.

(f) You must submit the applicable notifications as required under § 63.11124.

(g) You must keep records and submit reports as specified in §§ 63.11125 and 63.11126.

(h) You must comply with the requirements of this subpart by the applicable dates contained in § 63.11113.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008]

Testing and Monitoring Requirements

§ 63.11120 What testing and monitoring requirements must I meet?

(a) Each owner or operator, at the time of installation, as specified in § 63.11113(e), of a vapor balance system required under § 63.11118(b)(1), and every 3 years thereafter, must comply with the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must demonstrate compliance with the leak rate and cracking pressure requirements, specified in item 1(g) of Table 1 to this subpart, for pressure-vacuum vent valves installed on your gasoline storage tanks using the test methods identified in paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.1E,—Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves, adopted October 8, 2003 (incorporated by reference, see § 63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).

(2) You must demonstrate compliance with the static pressure performance requirement specified in item 1(h) of Table 1 to this subpart for your vapor balance system by conducting a static pressure test on your gasoline storage tanks using the test methods identified in paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this section.

(i) California Air Resources Board Vapor Recovery Test Procedure TP-201.3,—Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities, adopted April 12, 1996, and amended March 17, 1999 (incorporated by reference, see § 63.14).

(ii) Use alternative test methods and procedures in accordance with the alternative test method requirements in § 63.7(f).

(iii) Bay Area Air Quality Management District Source Test Procedure ST-30—Static Pressure Integrity Test—Underground Storage Tanks, adopted November 30, 1983, and amended December 21, 1994 (incorporated by reference, see § 63.14).

(b) Each owner or operator choosing, under the provisions of § 63.6(g), to use a vapor balance system other than that described in Table 1 to this subpart must demonstrate to the Administrator or delegated authority under paragraph § 63.11131(a) of this subpart, the equivalency of their vapor balance system to that described in Table 1 to this subpart using the procedures specified in paragraphs (b)(1) through (3) of this section.

(1) You must demonstrate initial compliance by conducting an initial performance test on the vapor balance system to demonstrate that the vapor balance system achieves 95 percent reduction using the California Air Resources Board Vapor Recovery Test Procedure TP-201.1,—Volumetric Efficiency for Phase I Vapor Recovery Systems, adopted April 12, 1996, and amended February 1, 2001, and October 8, 2003, (incorporated by reference, see § 63.14).

(2) You must, during the initial performance test required under paragraph (b)(1) of this section, determine and document alternative acceptable values for the leak rate and cracking pressure requirements specified in item 1(g) of Table 1 to this subpart and for the static pressure performance requirement in item 1(h) of Table 1 to this subpart.

(3) You must comply with the testing requirements specified in paragraph (a) of this section.

(c) Conduct of performance tests. Performance tests conducted for this subpart shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (*i.e.*, performance based on normal operating conditions) of the affected source. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(d) Owners and operators of gasoline cargo tanks subject to the provisions of Table 2 to this subpart must conduct annual certification testing according to the vapor tightness testing requirements found in § 63.11092(f).

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4182, Jan. 24, 2011]

Notifications, Records, and Reports

§ 63.11124 What notifications must I submit and when?

(a) Each owner or operator subject to the control requirements in § 63.11117 must comply with paragraphs (a)(1) through (3) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in § 63.11117, unless you meet the requirements in paragraph (a)(3) of this section. If your affected source is subject to the control requirements in § 63.11117 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (a)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in § 63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of § 63.11117 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, within 60 days of the applicable compliance date specified in § 63.11113, unless you meet the requirements in paragraph (a)(3) of this section. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facilities' monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (a)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (a)(1) of this section.

(3) If, prior to January 10, 2008, you are operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in § 63.11117(b), you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (a)(1) or paragraph (a)(2) of this section.

(b) Each owner or operator subject to the control requirements in § 63.11118 must comply with paragraphs (b)(1) through (5) of this section.

(1) You must submit an Initial Notification that you are subject to this subpart by May 9, 2008, or at the time you become subject to the control requirements in § 63.11118. If your affected source is subject to the control requirements in § 63.11118 only because it loads gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, you must submit the Initial Notification by May 24, 2011. The Initial Notification must contain the information specified in paragraphs (b)(1)(i) through (iii) of this section. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in § 63.13.

(i) The name and address of the owner and the operator.

(ii) The address (i.e., physical location) of the GDF.

(iii) A statement that the notification is being submitted in response to this subpart and identifying the requirements in paragraphs (a) through (c) of § 63.11118 that apply to you.

(2) You must submit a Notification of Compliance Status to the applicable EPA Regional Office and the delegated State authority, as specified in § 63.13, in accordance with the schedule specified in § 63.9(h). The Notification of

Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of this subpart, and must indicate whether the facility's throughput is determined based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If your facility is in compliance with the requirements of this subpart at the time the Initial Notification required under paragraph (b)(1) of this section is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under paragraph (b)(1) of this section.

(3) If, prior to January 10, 2008, you satisfy the requirements in both paragraphs (b)(3)(i) and (ii) of this section, you are not required to submit an Initial Notification or a Notification of Compliance Status under paragraph (b)(1) or paragraph (b)(2) of this subsection.

(i) You operate a vapor balance system at your gasoline dispensing facility that meets the requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(A) Achieves emissions reduction of at least 90 percent.

(B) Operates using management practices at least as stringent as those in Table 1 to this subpart.

(ii) Your gasoline dispensing facility is in compliance with an enforceable State, local, or tribal rule or permit that contains requirements of either paragraphs (b)(3)(i)(A) or (b)(3)(i)(B) of this section.

(4) You must submit a Notification of Performance Test, as specified in § 63.9(e), prior to initiating testing required by § 63.11120(a) and (b).

(5) You must submit additional notifications specified in § 63.9, as applicable.

[73 FR 1945, Jan. 10, 2008, as amended at 73 FR 12276, Mar. 7, 2008; 76 FR 4182, Jan. 24, 2011]

§ 63.11125 What are my recordkeeping requirements?

(a) Each owner or operator subject to the management practices in § 63.11118 must keep records of all tests performed under § 63.11120(a) and (b).

(b) Records required under paragraph (a) of this section shall be kept for a period of 5 years and shall be made available for inspection by the Administrator's delegated representatives during the course of a site visit.

(c) Each owner or operator of a gasoline cargo tank subject to the management practices in Table 2 to this subpart must keep records documenting vapor tightness testing for a period of 5 years. Documentation must include each of the items specified in § 63.11094(b)(2)(i) through (viii). Records of vapor tightness testing must be retained as specified in either paragraph (c)(1) or paragraph (c)(2) of this section.

(1) The owner or operator must keep all vapor tightness testing records with the cargo tank.

(2) As an alternative to keeping all records with the cargo tank, the owner or operator may comply with the requirements of paragraphs (c)(2)(i) and (ii) of this section.

(i) The owner or operator may keep records of only the most recent vapor tightness test with the cargo tank, and keep records for the previous 4 years at their office or another central location.

(ii) Vapor tightness testing records that are kept at a location other than with the cargo tank must be instantly available (e.g., via e-mail or facsimile) to the Administrator's delegated representative during the course of a site visit or within a mutually agreeable time frame. Such records must be an exact duplicate image of the original paper copy record with certifying signatures.

(d) Each owner or operator of an affected source under this subpart shall keep records as specified in paragraphs (d)(1) and (2) of this section.

(1) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4183, Jan. 24, 2011]

§ 63.11126 What are my reporting requirements?

(a) Each owner or operator subject to the management practices in § 63.11118 shall report to the Administrator the results of all volumetric efficiency tests required under § 63.11120(b). Reports submitted under this paragraph must be submitted within 180 days of the completion of the performance testing.

(b) Each owner or operator of an affected source under this subpart shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.

[76 FR 4183, Jan. 24, 2011]

Other Requirements and Information

§ 63.11130 What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions apply to you.

§ 63.11131 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as the applicable State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (3) of this section.

(1) Approval of alternatives to the requirements in §§ 63.11116 through 63.11118 and 63.11120.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

§ 63.11132 What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), or in subparts A and BBBBBB of this part. For purposes of this subpart, definitions in this section supersede definitions in other parts or subparts.

Dual-point vapor balance system means a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

Gasoline means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines.

Gasoline cargo tank means a delivery tank truck or railcar which is loading or unloading gasoline, or which has loaded or unloaded gasoline on the immediately previous load.

Gasoline dispensing facility (GDF) means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. These facilities include, but are not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

Motor vehicle means any self-propelled vehicle designed for transporting persons or property on a street or highway.

Nonroad engine means an internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards promulgated under section 7411 of this title or section 7521 of this title.

Nonroad vehicle means a vehicle that is powered by a nonroad engine, and that is not a motor vehicle or a vehicle used solely for competition.

Submerged filling means, for the purposes of this subpart, the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than the applicable distance specified in § 63.11117(b) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

Vapor balance system means a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

Vapor-tight means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

Vapor-tight gasoline cargo tank means a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in § 63.11092(f) of this part.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4183, Jan. 24, 2011]

Table 1 to Subpart CCCCCC of Part 63—Applicability Criteria and Management Practices for Gasoline Dispensing Facilities With Monthly Throughput of 100,000 Gallons of Gasoline or More¹

If you own or operate	Then you must
1. A new, reconstructed, or existing GDF subject to § 63.11118	Install and operate a vapor balance system on your gasoline storage tanks that meets the design criteria in paragraphs (a) through (h).
	(a) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnect.
	(b) The vapor line from the gasoline storage tank to the gasoline cargo tank shall be vapor-tight, as defined in § 63.11132.
	(c) The vapor balance system shall be designed such that the pressure in the tank truck does not exceed 18 inches water pressure or 5.9 inches water vacuum during product transfer.
	(d) The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.
	(e) If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that extends the same distance from the bottom of the storage tank as specified in § 63.11117(b).
	(f) Liquid fill connections for all systems shall be equipped with vapor-tight caps.
	(g) Pressure/vacuum (PV) vent valves shall be installed on the storage tank vent pipes. The pressure specifications for PV vent valves shall be: a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.
	(h) The vapor balance system shall be capable of meeting the static pressure performance requirement of the following equation:
	$P_f = 2e^{-500.887/v}$
	Where:
	P_f = Minimum allowable final pressure, inches of water.
	v = Total ullage affected by the test, gallons.
	e = Dimensionless constant equal to approximately 2.718.
	2 = The initial pressure, inches water.
2. A new or reconstructed GDF, or any storage tank(s) constructed after November 9, 2006, at an existing affected facility subject to § 63.11118	Equip your gasoline storage tanks with a dual-point vapor balance system, as defined in § 63.11132, and comply with the requirements of item 1 in this Table.

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

If you own or operate	Then you must
A gasoline cargo tank	Not unload gasoline into a storage tank at a GDF subject to the control requirements in this subpart unless the following conditions are met:
	(i) All hoses in the vapor balance system are properly connected,
	(ii) The adapters or couplers that attach to the vapor line on the storage tank have closures that seal upon disconnect,
	(iii) All vapor return hoses, couplers, and adapters used in the gasoline delivery are vapor-tight,
	(iv) All tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the GDF storage tank, and
	(v) All hatches on the tank truck are closed and securely fastened.
	(vi) The filling of storage tanks at GDF shall be limited to unloading from vapor-tight gasoline cargo tanks. Documentation that the cargo tank has met the specifications of EPA Method 27 shall be carried with the cargo tank, as specified in § 63.11125(c).

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4184, Jan. 24, 2011]

Table 3 to Subpart CCCCCC of Part 63—Applicability of General Provisions

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications	Yes, specific requirements given in § 63.11111.
§ 63.1(c)(2)	Title V Permit	Requirements for obtaining a title V permit from the applicable permitting authority	Yes, § 63.11111(f) of subpart CCCCCC exempts identified area sources from the obligation to obtain title V operating permits.
§ 63.2	Definitions	Definitions for part 63 standards	Yes, additional definitions in § 63.11132.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§ 63.4	Prohibited Activities and Circumvention	Prohibited activities; Circumvention, severability	Yes.
§ 63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes, except that these notifications are not required for facilities subject to § 63.11116
§ 63.6(a)	Compliance with Standards/Operation & Maintenance—Applicability	General Provisions apply unless compliance extension; General Provisions apply to area sources that become major	Yes.
§ 63.6(b)(1)-(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§ 63.6(b)(6)	[Reserved]		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	No.
§ 63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension	No, § 63.11113 specifies the compliance dates.
§ 63.6(c)(3)-(4)	[Reserved]		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources That become major must comply with major source standards by date indicated in this subpart or by equivalent time period (e.g., 3 years)	No.
§ 63.6(d)	[Reserved]		
63.6(e)(1)(i)	General duty to minimize emissions	Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met.	No. See § 63.11115 for general duty requirement.
63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	Owner or operator must correct malfunctions as soon as possible.	No.
§ 63.6(e)(2)	[Reserved]		
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction (SSM) Plan	Requirement for SSM plan; content of SSM plan; actions during SSM	No.
§ 63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	No.
§ 63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§ 63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§ 63.6(h)(1)	Compliance with Opacity/Visible Emission (VE) Standards	You must comply with opacity/VE standards at all times except during SSM	No.
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/VE Standards	If standard does not State test method, use EPA Method 9 for opacity in appendix A of part 60 of this chapter and EPA Method 22 for VE in appendix A of part 60 of this chapter	No.
§ 63.6(h)(2)(ii)	[Reserved]		
§ 63.6(h)(2)(iii)	Using Previous Tests To Demonstrate Compliance With Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart	No.
§ 63.6(h)(3)	[Reserved]		
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date	Must notify Administrator of anticipated date of observation	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.6(h)(5)(i), (iii)-(v)	Conducting Opacity/VE Observations	Dates and schedule for conducting opacity/VE observations	No.
§ 63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with 30 6-minute averages	No.
§ 63.6(h)(6)	Records of Conditions During Opacity/VE Observations	Must keep records available and allow Administrator to inspect	No.
§ 63.6(h)(7)(i)	Report Continuous Opacity Monitoring System (COMS) Monitoring Data From Performance Test	Must submit COMS data with other performance test data	No.
§ 63.6(h)(7)(ii)	Using COMS Instead of EPA Method 9	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in appendix A of part 60 of this chapter, but must notify Administrator before performance test	No.
§ 63.6(h)(7)(iii)	Averaging Time for COMS During Performance Test	To determine compliance, must reduce COMS data to 6-minute averages	No.
§ 63.6(h)(7)(iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to § 63.8(e); COMS are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d)	No.
§ 63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards	COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance Specification 1 in appendix B of part 60 of this chapter, and data have not been altered	No.
§ 63.6(h)(8)	Determining Compliance with Opacity/VE Standards	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance	No.
§ 63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	No.
§ 63.6(i)(1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes.
§ 63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§ 63.7(a)(3)	CAA Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes.
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.7(b)(2)	Notification of Re-scheduling	If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.
§ 63.7(c)	Quality Assurance (QA)/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
63.7(e)(1)	Conditions for Conducting Performance Tests	Performance test must be conducted under representative conditions	No, § 63.11120(c) specifies conditions for conducting performance tests.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR part 60 apply	Yes.
§ 63.8(a)(3)	[Reserved]		
§ 63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in § 63.11 apply	Yes.
§ 63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	No.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	No.
§ 63.8(c)(1)(i)-(iii)	Operation and Maintenance of Continuous Monitoring Systems (CMS)	Must maintain and operate each CMS as specified in § 63.6(e)(1); must keep parts for routine repairs readily available; must develop a written SSM plan for CMS, as specified in § 63.6(e)(3)	No.
§ 63.8(c)(2)-(8)	CMS Requirements	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	No.
§ 63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	No.
§ 63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	No.
§ 63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	No.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system (CEMS)	No.
§ 63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	No.
§ 63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§ 63.9(b)(1)-(2), (4)-(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each	Yes.
§ 63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§ 63.9(g)	Additional Notifications when Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes, however, there are no opacity standards.
§ 63.9(h)(1)-(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	Yes, however, there are no opacity standards.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change when notifications must be submitted	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§ 63.10(b)(2)(i)	Records related to SSM	Recordkeeping of occurrence and duration of startups and shutdowns	No.
§ 63.10(b)(2)(ii)	Records related to SSM	Recordkeeping of malfunctions	No. See § 63.11125(d) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§ 63.10(b)(2)(iii)	Maintenance records	Recordkeeping of maintenance on air pollution control and monitoring equipment	Yes.
§ 63.10(b)(2)(iv)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§ 63.10(b)(2)(v)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§ 63.10(b)(2)(vi)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	No.
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes.
§ 63.10(b)(3)	Records	Applicability determinations	Yes.
§ 63.10(c)	Records	Additional records for CMS	No.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§ 63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§ 63.10(d)(5)	SSM Reports	Contents and submission	No. See § 63.11126(b) for malfunction reporting requirements.
§ 63.10(e)(1)-(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; two-three copies of COMS performance evaluation	No.
§ 63.10(e)(3)(i)-(iii)	Reports	Schedule for reporting excess emissions	No.
§ 63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)	No.
§ 63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§ 63.8(c)(7)-(8) and 63.10(c)(5)-(13)	No, § 63.11130(K) specifies excess emission events for this subpart.
§ 63.10(e)(3)(vi)-(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS; requires all of the information in §§ 63.10(c)(5)-(13) and 63.8(c)(7)-(8)	No.
§ 63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	No.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.

Citation	Subject	Brief description	Applies to subpart CCCCCC
§ 63.11(b)	Flares	Requirements for flares	No.
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§ 63.14	Incorporations by Reference	Test methods incorporated by reference	Yes.
§ 63.15	Availability of Information	Public and confidential information	Yes.

[73 FR 1945, Jan. 10, 2008, as amended at 76 FR 4184, Jan. 24, 2011]

Attachment B

Minor Source Operating Permit (MSOP) No: M043-34319-00046

[Downloaded from the eCFR on May 13, 2013]

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Title 40: Protection of Environment

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

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

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

What This Subpart Covers

§ 63.11193 Am I subject to this subpart?

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

§ 63.11194 What is the affected source of this subpart?

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

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

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

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

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

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

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

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

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

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

§ 63.11195 Are any boilers not subject to this subpart?

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

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

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

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

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

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

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

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

(h) Temporary boilers as defined in this subpart.

(i) Residential boilers as defined in this subpart.

(j) Electric boilers as defined in this subpart.

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

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

§ 63.11196 What are my compliance dates?

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

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

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

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

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

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

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

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

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

§ 63.11200 What are the subcategories of boilers?

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

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

[78 FR 7506, Feb. 1, 2013]

§ 63.11201 What standards must I meet?

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

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

General Compliance Requirements

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

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

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

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

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

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

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

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

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

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

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c) (as applicable in Table 8 to this subpart), (e)(1), and (e)(2)(i).

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

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

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

Initial Compliance Requirements

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Where:

P_{90} = 90th percentile confidence level mercury concentration, in pounds per million Btu.

mean = Arithmetic average of the fuel mercury concentration in the fuel samples analyzed according to § 63.11213, in units of pounds per million Btu.

SD = Standard deviation of the mercury concentration in the fuel samples analyzed according to § 63.11213, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable mercury emission limit, the emission rate that you calculate for your boiler using Equation 1 of this section must be less than the applicable mercury emission limit.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7508, Feb. 1, 2013]

§ 63.11212 What stack tests and procedures must I use for the performance tests?

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in § 63.7(c).

(b) You must conduct each stack test according to the requirements in Table 4 to this subpart. Boilers that use a CEMS for carbon monoxide (CO) are exempt from the initial CO performance testing in Table 4 to this subpart and the oxygen concentration operating limit requirement specified in Table 3 to this subpart.

(c) You must conduct performance stack tests at the representative operating load conditions while burning the type of fuel or mixture of fuels that have the highest emissions potential for each regulated pollutant, and you must demonstrate initial compliance and establish your operating limits based on these performance stack tests. For subcategories with more than one emission limit, these requirements could result in the need to conduct more than one performance stack test. Following each performance stack test and until the next performance stack test, you must comply with the operating limit for operating load conditions specified in Table 3 to this subpart.

(d) You must conduct a minimum of three separate test runs for each performance stack test required in this section, as specified in § 63.7(e)(3) and in accordance with the provisions in Table 4 to this subpart.

(e) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A-7 to part 60 of this chapter to convert the measured PM concentrations and the measured mercury concentrations that result from the performance test to pounds per million Btu heat input emission rates.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7508, Feb. 1, 2013]

§ 63.11213 What fuel analyses and procedures must I use for the performance tests?

(a) You must conduct fuel analyses according to the procedures in paragraphs (b) and (c) of this section and Table 5 to this subpart, as applicable. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury in Table 1 of this subpart.

(b) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in Table 5 to this subpart. Each composite sample must consist of a minimum of three samples collected at approximately equal intervals during a test run period.

(c) Determine the concentration of mercury in the fuel in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 5 to this subpart.

§ 63.11214 How do I demonstrate initial compliance with the work practice standard, emission reduction measures, and management practice?

(a) If you own or operate an existing or new coal-fired boiler with a heat input capacity of less than 10 million Btu per hour, you must conduct a performance tune-up according to § 63.11223(b) and you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the boiler.

(b) If you own or operate an existing or new biomass-fired boiler or an existing or new oil-fired boiler, you must conduct a performance tune-up according to § 63.11223(b) and you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the boiler.

(c) If you own or operate an existing affected boiler with a heat input capacity of 10 million Btu per hour or greater, you must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 to this subpart and is an accurate depiction of your facility.

(d) If you own or operate a boiler subject to emission limits in Table 1 of this subpart, you must minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. You must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7508, Feb. 1, 2013]

Continuous Compliance Requirements

§ 63.11220 When must I conduct subsequent performance tests or fuel analyses?

(a) If your boiler has a heat input capacity of 10 million British thermal units per hour or greater, you must conduct all applicable performance (stack) tests according to § 63.11212 on a triennial basis, except as specified in paragraphs (b) through (d) of this section. Triennial performance tests must be completed no more than 37 months after the previous performance test.

(b) When demonstrating initial compliance with the PM emission limit, if your boiler's performance test results show that your PM emissions are equal to or less than half of the PM emission limit, you do not need to conduct further performance tests for PM but must continue to comply with all applicable operating limits and monitoring requirements. If your initial performance test results show that your PM emissions are greater than half of the PM emission limit, you must conduct subsequent performance tests as specified in paragraph (a) of this section.

(c) If you demonstrate compliance with the mercury emission limit based on fuel analysis, you must conduct a fuel analysis according to § 63.11213 for each type of fuel burned as specified in paragraphs (c)(1) and (2) of this section. If you plan to burn a new type of fuel or fuel mixture, you must conduct a fuel analysis before burning the new type of fuel or mixture in your boiler. You must recalculate the mercury emission rate using Equation 1 of § 63.11211. The recalculated mercury emission rate must be less than the applicable emission limit.

(1) When demonstrating initial compliance with the mercury emission limit, if the mercury constituents in the fuel or fuel mixture are measured to be equal to or less than half of the mercury emission limit, you do not need to conduct further fuel analysis sampling but must continue to comply with all applicable operating limits and monitoring requirements.

(2) When demonstrating initial compliance with the mercury emission limit, if the mercury constituents in the fuel or fuel mixture are greater than half of the mercury emission limit, you must conduct quarterly sampling.

(d) For existing affected boilers that have not operated since the previous compliance demonstration and more than 3 years have passed since the previous compliance demonstration, you must complete your subsequent compliance demonstration no later than 180 days after the re-start of the affected boiler.

[78 FR 7508, Feb. 1, 2013]

§ 63.11221 Is there a minimum amount of monitoring data I must obtain?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.11205(c).

(b) You must operate the monitoring system and collect data at all required intervals at all times the affected source is operating and compliance is required, except for periods of monitoring system malfunctions or out-of-control periods (see § 63.8(c)(7) of this part), repairs associated with monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data collected during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or quality control activities in calculations used to report emissions or operating levels. Any such periods must be reported according to the requirements in § 63.11225. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in your site-specific monitoring plan), failure to collect required data is a deviation of the monitoring requirements.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7508, Feb. 1, 2013]

§ 63.11222 How do I demonstrate continuous compliance with the emission limits?

(a) You must demonstrate continuous compliance with each emission limit and operating limit in Tables 1 and 3 to this subpart that applies to you according to the methods specified in Table 7 to this subpart and to paragraphs (a)(1) through (4) of this section.

(1) Following the date on which the initial compliance demonstration is completed or is required to be completed under §§ 63.7 and 63.11196, whichever date comes first, you must continuously monitor the operating parameters. Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests.

(2) If you have an applicable mercury or PM emission limit, you must keep records of the type and amount of all fuels burned in each boiler during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in lower emissions of mercury than the applicable emission limit (if you demonstrate compliance through fuel analysis), or result in lower fuel input of mercury than the maximum values calculated during the last performance stack test (if you demonstrate compliance through performance stack testing).

(3) If you have an applicable mercury emission limit and you plan to burn a new type of fuel, you must determine the mercury concentration for any new fuel type in units of pounds per million Btu, using the procedures in Equation 1 of § 63.11211 based on supplier data or your own fuel analysis, and meet the requirements in paragraphs (a)(3)(i) or (ii) of this section.

(i) The recalculated mercury emission rate must be less than the applicable emission limit.

(ii) If the mercury concentration is higher than mercury fuel input during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.11212 to demonstrate that the mercury emissions do not exceed the emission limit.

(4) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 and 3 to this subpart that apply to you. These instances are deviations from the emission limits in this subpart. These deviations must be reported according to the requirements in § 63.11225.

§ 63.11223 How do I demonstrate continuous compliance with the work practice and management practice standards?

(a) For affected sources subject to the work practice standard or the management practices of a tune-up, you must conduct a performance tune-up according to paragraph (b) of this section and keep records as required in § 63.11225(c) to demonstrate continuous compliance. You must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.

(b) Except as specified in paragraphs (c) through (f) of this section, you must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of this section. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler.

(1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.

(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.

(4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.

(5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

(6) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (b)(6)(i) through (iii) of this section.

(i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.

(ii) A description of any corrective actions taken as a part of the tune-up of the boiler.

(iii) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

(7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

(c) Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up must conduct a tune-up of the boiler every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed boiler with an oxygen trim system, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.

(d) Seasonal boilers must conduct a tune-up every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed seasonal boiler, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. Seasonal boilers are not subject to the emission limits in Table 1 to this subpart or the operating limits in Table 3 to this subpart.

(e) Oil-fired boilers with a heat input capacity of equal to or less than 5 million Btu per hour must conduct a tune-up every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed oil-fired boiler with a heat input capacity of equal to or less than 5 million Btu per hour, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.

(f) Limited-use boilers must conduct a tune-up every 5 years as specified in paragraphs (b)(1) through (7) of this section. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed limited-use boiler, the first 5-year tune-up must be no later than 61 months after the initial startup. You may delay the burner inspection specified in paragraph (b)(1) of this section and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of this section until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. Limited-use boilers are not subject to the emission limits in Table 1 to this subpart, the energy assessment requirements in Table 2 to this subpart, or the operating limits in Table 3 to this subpart.

(g) If you own or operate a boiler subject to emission limits in Table 1 of this subpart, you must minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. You must submit a signed statement in the Notification

of Compliance Status report that indicates that you conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7509, Feb. 1, 2013]

§ 63.11224 What are my monitoring, installation, operation, and maintenance requirements?

(a) If your boiler is subject to a CO emission limit in Table 1 to this subpart, you must either install, operate, and maintain a CEMS for CO and oxygen according to the procedures in paragraphs (a)(1) through (6) of this section, or install, calibrate, operate, and maintain an oxygen analyzer system, as defined in § 63.11237, according to the manufacturer's recommendations and paragraphs (a)(7) and (d) of this section, as applicable, by the compliance date specified in § 63.11196. Where a certified CO CEMS is used, the CO level shall be monitored at the outlet of the boiler, after any add-on controls or flue gas recirculation system and before release to the atmosphere. Boilers that use a CO CEMS are exempt from the initial CO performance testing and oxygen concentration operating limit requirements specified in § 63.11211(a) of this subpart. Oxygen monitors and oxygen trim systems must be installed to monitor oxygen in the boiler flue gas, boiler firebox, or other appropriate intermediate location.

(1) Each CO CEMS must be installed, operated, and maintained according to the applicable procedures under Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B, and each oxygen CEMS must be installed, operated, and maintained according to Performance Specification 3 at 40 CFR part 60, appendix B. Both the CO and oxygen CEMS must also be installed, operated, and maintained according to the site-specific monitoring plan developed according to paragraph (c) of this section.

(2) You must conduct a performance evaluation of each CEMS according to the requirements in § 63.8(e) and according to Performance Specifications 3 and 4, 4A, or 4B at 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) every 15 minutes. You must have CEMS data values from a minimum of four successive cycles of operation representing each of the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CEMS calibration, quality assurance, or maintenance activities are being performed, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in § 63.8(g)(2).

(5) You must calculate hourly averages, corrected to 3 percent oxygen, from each hour of CO CEMS data in parts per million CO concentrations and determine the 10-day rolling average of all recorded readings, except as provided in § 63.11221(c). Calculate a 10-day rolling average from all of the hourly averages collected for the 10-day operating period using Equation 2 of this section.

$$\text{10-day average} = \frac{\sum_{i=1}^n Hpvi}{n} \quad \text{(Eq. 2)}$$

Where:

Hpvi = the hourly parameter value for hour i

n = the number of valid hourly parameter values collected over 10 boiler operating days

(6) For purposes of collecting CO data, you must operate the CO CEMS as specified in § 63.11221(b). For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, except that you must exclude certain data as specified in § 63.11221(c). Periods when CO data are unavailable may constitute monitoring deviations as specified in § 63.11221(d).

(7) You must operate the oxygen analyzer system at or above the minimum oxygen level that is established as the operating limit according to Table 6 to this subpart when firing the fuel or fuel mixture utilized during the most recent CO performance stack test. Operation of oxygen trim systems to meet these requirements shall not be done in a manner which compromises furnace safety.

(b) If you are using a control device to comply with the emission limits specified in Table 1 to this subpart, you must maintain each operating limit in Table 3 to this subpart that applies to your boiler as specified in Table 7 to this subpart. If you use a control device not covered in Table 3 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under § 63.8(f).

(c) If you demonstrate compliance with any applicable emission limit through stack testing and subsequent compliance with operating limits, you must develop a site-specific monitoring plan according to the requirements in paragraphs (c)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each CMS required in this section, you must develop, and submit to the EPA Administrator for approval upon request, a site-specific monitoring plan that addresses paragraphs (c)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan (if requested) at least 60 days before your initial performance evaluation of your CMS.

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

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

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

(2) In your site-specific monitoring plan, you must also address paragraphs (c)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (3), and (4)(ii).

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d).

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

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

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

(d) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each CPMS according to the procedures in paragraphs (d)(1) through (4) of this section.

(1) The CPMS must complete a minimum of one cycle of operation every 15 minutes. You must have data values from a minimum of four successive cycles of operation representing each of the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed, to have a valid hour of data.

(2) You must calculate hourly arithmetic averages from each hour of CPMS data in units of the operating limit and determine the 30-day rolling average of all recorded readings, except as provided in § 63.11221(c). Calculate a 30-day rolling average from all of the hourly averages collected for the 30-day operating period using Equation 3 of this section.

$$\text{30-day average} = \frac{\sum_{i=1}^n Hpvi}{n} \quad [\text{Eq. 3}]$$

Where:

H_{pvi} = the hourly parameter value for hour i

n = the number of valid hourly parameter values collected over 30 boiler operating days

(3) For purposes of collecting data, you must operate the CPMS as specified in § 63.11221(b). For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, except that you must exclude certain data as specified in § 63.11221(c). Periods when CPMS data are unavailable may constitute monitoring deviations as specified in § 63.11221(d).

(4) Record the results of each inspection, calibration, and validation check.

(e) If you have an applicable opacity operating limit under this rule, you must install, operate, certify and maintain each COMS according to the procedures in paragraphs (e)(1) through (8) of this section by the compliance date specified in § 63.11196.

(1) Each COMS must be installed, operated, and maintained according to Performance Specification 1 of 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each COMS according to the requirements in § 63.8 and according to Performance Specification 1 of 40 CFR part 60, appendix B.

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in § 63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in § 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of § 63.8(e). You must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

(7) You must calculate and record 6-minute averages from the opacity monitoring data and determine and record the daily block average of recorded readings, except as provided in § 63.11221(c).

(8) For purposes of collecting opacity data, you must operate the COMS as specified in § 63.11221(b). For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, except that you must exclude certain data as specified in § 63.11221(c). Periods when COMS data are unavailable may constitute monitoring deviations as specified in § 63.11221(d).

(f) If you use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate the bag leak detection system as specified in paragraphs (f)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with EPA-454/R-98-015 (incorporated by reference, see § 63.14).

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

- (4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.
- (5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.
- (6) The bag leak detection system must be equipped with an audible or visual alarm system that will activate automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard or seen by plant operating personnel.
- (7) For positive pressure fabric filter systems that do not duct all compartments or cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.
- (8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7510, Feb. 1, 2013]

§ 63.11225 What are my notification, reporting, and recordkeeping requirements?

- (a) You must submit the notifications specified in paragraphs (a)(1) through (5) of this section to the administrator.
- (1) You must submit all of the notifications in §§ 63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply to you by the dates specified in those sections except as specified in paragraphs (a)(2) and (4) of this section.
- (2) An Initial Notification must be submitted no later than January 20, 2014 or within 120 days after the source becomes subject to the standard.
- (3) If you are required to conduct a performance stack test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin.
- (4) You must submit the Notification of Compliance Status no later than 120 days after the applicable compliance date specified in § 63.11196 unless you must conduct a performance stack test. If you must conduct a performance stack test, you must submit the Notification of Compliance Status within 60 days of completing the performance stack test. You must submit the Notification of Compliance Status in accordance with paragraphs (a)(4)(i) and (vi) of this section. The Notification of Compliance Status must include the information and certification(s) of compliance in paragraphs (a)(4)(i) through (v) of this section, as applicable, and signed by a responsible official.
- (i) You must submit the information required in § 63.9(h)(2), except the information listed in § 63.9(h)(2)(i)(B), (D), (E), and (F). If you conduct any performance tests or CMS performance evaluations, you must submit that data as specified in paragraph (e) of this section. If you conduct any opacity or visible emission observations, or other monitoring procedures or methods, you must submit that data to the Administrator at the appropriate address listed in § 63.13.
- (ii) "This facility complies with the requirements in § 63.11214 to conduct an initial tune-up of the boiler."
- (iii) "This facility has had an energy assessment performed according to § 63.11214(c)."
- (iv) For units that install bag leak detection systems: "This facility complies with the requirements in § 63.11224(f)."
- (v) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit."
- (vi) The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in § 63.13.

(5) If you are using data from a previously conducted emission test to serve as documentation of conformance with the emission standards and operating limits of this subpart, you must include in the Notification of Compliance Status the date of the test and a summary of the results, not a complete test report, relative to this subpart.

(b) You must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of this section. You must submit the report by March 15 if you had any instance described by paragraph (b)(3) of this section. For boilers that are subject only to a requirement to conduct a biennial or 5-year tune-up according to § 63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial or 5-year compliance report as specified in paragraphs (b)(1) and (2) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) "This facility complies with the requirements in § 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."

(ii) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit."

(iii) "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.

(4) The total fuel use by each affected boiler subject to an emission limit, for each calendar month within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by you or EPA through a petition process to be a non-waste under § 241.3(c), whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of § 241.3, and the total fuel usage amount with units of measure.

(c) You must maintain the records specified in paragraphs (c)(1) through (7) of this section.

(1) As required in § 63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

(2) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by § 63.11214 and § 63.11223 as specified in paragraphs (c)(2)(i) through (vi) of this section.

(i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

(ii) For operating units that combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to § 241.3(b)(1) of this chapter, you must keep a record which documents how the secondary material meets each of the legitimacy criteria under § 241.3(d)(1). If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to § 241.3(b)(4) of this chapter, you must keep records as to how the operations that produced the fuel satisfies the definition of processing in § 241.2 and each of the legitimacy criteria in § 241.3(d)(1) of this chapter. If the fuel received a non-waste determination pursuant to the petition process submitted under § 241.3(c) of this chapter, you must keep a record that documents how the fuel satisfies the

requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per § 241.4, you must keep records documenting that the material is a listed non-waste under § 241.4(a).

(iii) For each boiler required to conduct an energy assessment, you must keep a copy of the energy assessment report.

(iv) For each boiler subject to an emission limit in Table 1 to this subpart, you must also keep records of monthly fuel use by each boiler, including the type(s) of fuel and amount(s) used.

(v) For each boiler that meets the definition of seasonal boiler, you must keep records of days of operation per year.

(vi) For each boiler that meets the definition of limited-use boiler, you must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and records of fuel use for the days the boiler is operating.

(3) For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation that were done to demonstrate compliance with the mercury emission limits. Supporting documentation should include results of any fuel analyses. You can use the results from one fuel analysis for multiple boilers provided they are all burning the same fuel type.

(4) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in § 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(6) You must keep the records of all inspection and monitoring data required by §§ 63.11221 and 63.11222, and the information identified in paragraphs (c)(6)(i) through (vi) of this section for each required inspection or monitoring.

(i) The date, place, and time of the monitoring event.

(ii) Person conducting the monitoring.

(iii) Technique or method used.

(iv) Operating conditions during the activity.

(v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation.

(vi) Maintenance or corrective action taken (if applicable).

(7) If you use a bag leak detection system, you must keep the records specified in paragraphs (c)(7)(i) through (iii) of this section.

(i) Records of the bag leak detection system output.

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings.

(iii) The date and time of all bag leak detection system alarms, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(d) Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

(e)(1) Within 60 days after the date of completing each performance test (defined in § 63.2) as required by this subpart you must submit the results of the performance tests, including any associated fuel analyses, required by this subpart to EPA's WebFIRE database by using CEDRI that is accessed through EPA's CDX (www.epa.gov/cdx). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator at the appropriate address listed in § 63.13.

(2) Within 60 days after the date of completing each CEMS performance evaluation test as defined in § 63.2, you must submit relative accuracy test audit (RATA) data to EPA's CDX by using CEDRI in accordance with paragraph (e)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation in paper submissions to the Administrator at the appropriate address listed in § 63.13.

(f) If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste. The notification must identify:

(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will commence burning solid waste, and the date of the notice.

(2) The currently applicable subcategory under this subpart.

(3) The date on which you became subject to the currently applicable emission limits.

(4) The date upon which you will commence combusting solid waste.

(g) If you have switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within subpart JJJJJJ, in the boiler becoming subject to subpart JJJJJJ, or in the boiler switching out of subpart JJJJJJ due to a change to 100 percent natural gas, or you have taken a permit limit that resulted in you being subject to subpart JJJJJJ, you must provide notice of the date upon which you switched fuels, made the physical change, or took a permit limit within 30 days of the change. The notification must identify:

(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, were physically changed, or took a permit limit, and the date of the notice.

(2) The date upon which the fuel switch, physical change, or permit limit occurred.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7511, Feb. 1, 2013] .

§ 63.11226 Affirmative defense for violation of emission standards during malfunction.

In response to an action to enforce the standards set forth in § 63.11201 you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 63.2.

Appropriate penalties may be assessed if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) *Assertion of affirmative defense.* To establish the affirmative defense in any action to enforce such a standard, you must timely meet the reporting requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The violation:

(i) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when a violation occurred; and

(3) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(4) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment, and human health; and

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the affected source was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(b) *Report.* The owner or operator seeking to assert an affirmative defense shall submit a written report to the Administrator with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. This affirmative defense report shall be included in the first periodic compliance, deviation report or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance, deviation report or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance, deviation report or excess emission report due after the initial occurrence of the violation of the relevant standard.

Other Requirements and Information

§ 63.11235 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.11236 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by EPA or an administrator such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (c) of this section are retained by the EPA Administrator and are not transferred to the state, local, or tribal agency.

(c) The authorities that cannot be delegated to state, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of an alternative non-opacity emission standard and work practice standards in § 63.11223(a).

(2) Approval of alternative opacity emission standard under § 63.6(h)(9).

(3) Approval of major change to test methods under § 63.7(e)(2)(ii) and (f). A “major change to test method” is defined in § 63.90.

(4) Approval of a major change to monitoring under § 63.8(f). A “major change to monitoring” is defined in § 63.90.

(5) Approval of major change to recordkeeping and reporting under § 63.10(f). A “major change to recordkeeping/reporting” is defined in § 63.90.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7513, Feb. 1, 2013]

§ 63.11237 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in § 63.2 (the General Provisions), and in this section as follows:

10-day rolling average means the arithmetic mean of all valid hours of data from 10 successive operating days, except for periods of startup and shutdown and periods when the unit is not operating.

30-day rolling average means the arithmetic mean of all valid hours of data from 30 successive operating days, except for periods of startup and shutdown and periods when the unit is not operating.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Annual heat input means the heat input for the 12 months preceding the compliance demonstration.

Bag leak detection system means a group of instruments that are capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.*, baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Biodiesel means a mono-alkyl ester derived from biomass and conforming to ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels (incorporated by reference, see § 63.14).

Biomass means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue and wood products (e.g., trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings); animal manure, including litter and other bedding materials; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds. This definition of biomass is not intended to suggest that these materials are or are not solid waste.

Biomass subcategory includes any boiler that burns any biomass and is not in the coal subcategory.

Boiler means an enclosed device using controlled flame combustion in which water is heated to recover thermal energy in the form of steam and/or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in § 241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers, process heaters, and autoclaves are excluded from the definition of *Boiler*.

Boiler system means the boiler and associated components, such as, feedwater systems, combustion air systems, fuel systems (including burners), blowdown systems, combustion control systems, steam systems, and condensate return systems, directly connected to and serving the energy use systems.

Calendar year means the period between January 1 and December 31, inclusive, for a given year.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388 (incorporated by reference, see § 63.14), coal refuse, and petroleum coke. For the purposes of this subpart, this definition of “coal” includes synthetic fuels derived from coal including, but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures. Coal derived gases are excluded from this definition.

Coal subcategory includes any boiler that burns any solid fossil fuel and no more than 15 percent biomass on an annual heat input basis.

Commercial boiler means a boiler used in commercial establishments such as hotels, restaurants, and laundries to provide electricity, steam, and/or hot water.

Common stack means the exhaust of emissions from two or more affected units through a single flue. Affected units with a common stack may each have separate air pollution control systems located before the common stack, or may have a single air pollution control system located after the exhausts come together in a single flue.

Daily block average means the arithmetic mean of all valid emission concentrations or parameter levels recorded when a unit is operating measured over the 24-hour period from 12 a.m. (midnight) to 12 a.m. (midnight), except for periods of startup and shutdown and periods when the unit is not operating.

Deviation (1) Means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any applicable requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

(2) A deviation is not always a violation.

Distillate oil means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see § 63.14) or diesel fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 63.14), kerosene, and biodiesel as defined by the American Society of Testing and Materials in ASTM D6751-11b (incorporated by reference, see § 63.14).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems used as control devices in fluidized bed boilers and process heaters are included in this definition. A dry scrubber is a dry control system.

Electric boiler means a boiler in which electric heating serves as the source of heat. Electric boilers that burn gaseous or liquid fuel during periods of electrical power curtailment or failure are included in this definition.

Electric utility steam generating unit (EGU) means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit. To be "capable of combusting" fossil fuels, an EGU would need to have these fuels allowed in their operating permits and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired EGU means any EGU that fired fossil fuel for more than 10.0 percent of the average annual heat input in any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after April 16, 2015.

Electrostatic precipitator (ESP) means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper. An electrostatic precipitator is usually a dry control system.

Energy assessment means the following for the emission units covered by this subpart:

(1) The energy assessment for facilities with affected boilers with less than 0.3 trillion Btu per year (TBtu/year) heat input capacity will be 8 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 50 percent of the affected boiler(s) energy (e.g., steam, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing an 8-hour energy assessment.

(2) The energy assessment for facilities with affected boilers with 0.3 to 1.0 TBtu/year heat input capacity will be 24 on-site technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 33 percent of the affected boiler(s) energy (e.g., steam, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing a 24-hour energy assessment.

(3) The energy assessment for facilities with affected boilers with greater than 1.0 TBtu/year heat input capacity will be up to 24 on-site technical labor hours in length for the first TBtu/year plus 8 on-site technical labor hours for every additional 1.0 TBtu/year not to exceed 160 on-site technical hours, but may be longer at the discretion of the owner or operator of the affected source. The boiler system(s) and any on-site energy use system(s) accounting for at least 20 percent of the affected boiler(s) energy (e.g., steam, hot water, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities.

(4) The on-site energy use system(s) serving as the basis for the percent of affected boiler(s) energy production, as applicable, in paragraphs (1), (2), and (3) of this definition may be segmented by production area or energy use area as most logical and applicable to the specific facility being assessed (e.g., product X manufacturing area; product Y drying area; Building Z).

Energy management program means a program that includes a set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility. Facilities may establish their program through energy management systems compatible with ISO 50001.

Energy use system (1) Includes the following systems located on the site of the affected boiler that use energy provided by the boiler:

(i) Process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air conditioning systems; hot water systems; building envelop; and lighting; or

(ii) Other systems that use steam, hot water, process heat, or electricity, provided by the affected boiler.

(2) Energy use systems are only those systems using energy clearly produced by affected boilers.

Equivalent means the following only as this term is used in Table 5 to this subpart:

(1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or

EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.

(2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.

(3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.

(4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.

(5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining mercury using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing this metal. On the other hand, if metals analysis is done on an "as received" basis, a separate aliquot can be dried to determine moisture content and the mercury concentration mathematically adjusted to a dry basis.

(6) An equivalent mercury determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for mercury and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 5 to this subpart for the same purpose.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse. A fabric filter is a dry control system.

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including, but not limited to, the requirements of 40 CFR parts 60, 61, 63, and 65, requirements within any applicable state implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed boiler means a boiler utilizing a fluidized bed combustion process that is not a pulverized coal boiler.

Fluidized bed combustion means a process where a fuel is burned in a bed of granulated particles, which are maintained in a mobile suspension by the forward flow of air and combustion products.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, sub-bituminous coal, lignite, anthracite, biomass, distillate oil, residual oil. Individual fuel types received from different suppliers are not considered new fuel types.

Gaseous fuels includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, hydrogen, and biogas.

Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

Heat input means heat derived from combustion of fuel in a boiler and does not include the heat input from preheated combustion air, recirculated flue gases, returned condensate, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous, liquid, or biomass fuel and hot water is withdrawn for use external to the vessel. Hot water boilers (*i.e.*, not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour are included in this definition. The 120 U.S. gallon capacity threshold to be considered a hot water heater is independent of the 1.6 million Btu per hour heat input capacity threshold for hot water boilers. Hot water heater also means a tankless unit that provides on-demand hot water.

Hourly average means the arithmetic average of at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Institutional boiler means a boiler used in institutional establishments such as, but not limited to, medical centers, nursing homes, research centers, institutions of higher education, elementary and secondary schools, libraries, religious establishments, and governmental buildings to provide electricity, steam, and/or hot water.

Limited-use boiler means any boiler that burns any amount of solid or liquid fuels and has a federally enforceable average annual capacity factor of no more than 10 percent.

Liquid fuel includes, but is not limited to, distillate oil, residual oil, any form of liquid fuel derived from petroleum, used oil meeting the specification in 40 CFR 279.11, liquid biofuels, biodiesel, and vegetable oil, and comparable fuels as defined under 40 CFR 261.38.

Load fraction means the actual heat input of a boiler divided by heat input during the performance test that established the minimum sorbent injection rate or minimum activated carbon injection rate, expressed as a fraction (*e.g.*, for 50 percent load the load fraction is 0.5).

Minimum activated carbon injection rate means load fraction multiplied by the lowest hourly average activated carbon injection rate measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

Minimum oxygen level means the lowest hourly average oxygen level measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable carbon monoxide emission limit.

Minimum scrubber liquid flow rate means the lowest hourly average scrubber liquid flow rate (*e.g.*, to the particulate matter scrubber) measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

Minimum scrubber pressure drop means the lowest hourly average scrubber pressure drop measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

Minimum total secondary electric power means the lowest hourly average total secondary electric power determined from the values of secondary voltage and secondary current to the electrostatic precipitator measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limits.

Natural gas means:

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

(2) Liquefied petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 63.14); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions (*i.e.*, a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals). Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 35 and 41 megajoules (MJ) per dry standard cubic meter (950 and 1,100 Btu per dry standard cubic foot); or

(4) Propane or propane-derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8 .

Oil subcategory includes any boiler that burns any liquid fuel and is not in either the biomass or coal subcategories. Gas-fired boilers that burn liquid fuel only during periods of gas curtailment, gas supply interruptions, startups, or for periodic testing are not included in this definition. Periodic testing on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the boiler unit. It is not necessary for fuel to be combusted for the entire 24-hour period.

Oxygen analyzer system means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler flue gas, boiler firebox, or other appropriate intermediate location. This definition includes oxygen trim systems.

Oxygen trim system means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or carbon monoxide monitor that automatically provides a feedback signal to the combustion air controller.

Particulate matter (PM) means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an approved alternative method.

Performance testing means the collection of data resulting from the execution of a test method used (either by stack testing or fuel analysis) to demonstrate compliance with a relevant emission standard.

Period of gas curtailment or supply interruption means a period of time during which the supply of gaseous fuel to an affected boiler is restricted or halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility.

Process heater means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. Process heaters are devices in which the

combustion gases do not come into direct contact with process materials. Process heaters include units that heat water/water mixtures for pool heating, sidewalk heating, cooling tower water heating, power washing, or oil heating.

Qualified energy assessor means:

(1) Someone who has demonstrated capabilities to evaluate energy savings opportunities for steam generation and major energy using systems, including, but not limited to:

(i) Boiler combustion management.

(ii) Boiler thermal energy recovery, including

(A) Conventional feed water economizer,

(B) Conventional combustion air preheater, and

(C) Condensing economizer.

(iii) Boiler blowdown thermal energy recovery.

(iv) Primary energy resource selection, including

(A) Fuel (primary energy source) switching, and

(B) Applied steam energy versus direct-fired energy versus electricity.

(v) Insulation issues.

(vi) Steam trap and steam leak management.

(vii) Condensate recovery.

(viii) Steam end-use management.

(2) Capabilities and knowledge includes, but is not limited to:

(i) Background, experience, and recognized abilities to perform the assessment activities, data analysis, and report preparation.

(ii) Familiarity with operating and maintenance practices for steam or process heating systems.

(iii) Additional potential steam system improvement opportunities including improving steam turbine operations and reducing steam demand.

(iv) Additional process heating system opportunities including effective utilization of waste heat and use of proper process heating methods.

(v) Boiler-steam turbine cogeneration systems.

(vi) Industry specific steam end-use systems.

Regulated gas stream means an offgas stream that is routed to a boiler for the purpose of achieving compliance with a standard under another subpart of this part or part 60, part 61, or part 65 of this chapter.

Residential boiler means a boiler used to provide heat and/or hot water and/or as part of a residential combined heat and power system. This definition includes boilers located at an institutional facility (e.g., university campus, military base, church grounds) or commercial/industrial facility (e.g., farm) used primarily to provide heat and/or hot water for:

- (1) A dwelling containing four or fewer families, or
- (2) A single unit residence dwelling that has since been converted or subdivided into condominiums or apartments.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society of Testing and Materials in ASTM D396-10 (incorporated by reference, see § 63.14(b)).

Responsible official means responsible official as defined in § 70.2.

Seasonal boiler means a boiler that undergoes a shutdown for a period of at least 7 consecutive months (or 210 consecutive days) each 12-month period due to seasonal conditions, except for periodic testing. Periodic testing shall not exceed a combined total of 15 days during the 7-month shutdown. This definition only applies to boilers that would otherwise be included in the biomass subcategory or the oil subcategory.

Shutdown means the cessation of operation of a boiler for any purpose. Shutdown begins either when none of the steam or heat from the boiler is supplied for heating and/or producing electricity, or for any other purpose, or at the point of no fuel being fired in the boiler, whichever is earlier. Shutdown ends when there is no steam and no heat being supplied and no fuel being fired in the boiler.

Solid fossil fuel includes, but is not limited to, coal, coke, petroleum coke, and tire-derived fuel.

Solid fuel means any solid fossil fuel or biomass or bio-based solid fuel.

Startup means either the first-ever firing of fuel in a boiler for the purpose of supplying steam or heat for heating and/or producing electricity, or for any other purpose, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam or heat from the boiler is supplied for heating and/or producing electricity, or for any other purpose.

Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A boiler is not a temporary boiler if any one of the following conditions exists:

- (1) The equipment is attached to a foundation.
- (2) The boiler or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the regulatory agency approves an extension. An extension may be granted by the regulating agency upon petition by the owner or operator of a unit specifying the basis for such a request. Any temporary boiler that replaces a temporary boiler at a location within the facility and performs the same or similar function will be included in calculating the consecutive time period unless there is a gap in operation of 12 months or more.
- (3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.
- (4) The equipment is moved from one location to another within the facility but continues to perform the same or similar function and serve the same electricity, steam, and/or hot water system in an attempt to circumvent the residence time requirements of this definition.

Tune-up means adjustments made to a boiler in accordance with the procedures outlined in § 63.11223(b).

Vegetable oil means oils extracted from vegetation.

Voluntary Consensus Standards (VCS) mean technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. EPA/Office of Air Quality Planning and Standards, by precedent, has only used VCS that are written in English. Examples of VCS bodies are: American Society of Testing and Materials (ASTM 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-B2959, (800) 262-1373, <http://www.astm.org>), American Society of Mechanical Engineers (ASME ASME, Three Park Avenue, New York, NY 10016-5990, (800) 843-2763, <http://www.asme.org>), International Standards Organization (ISO 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, +41 22 749 01 11, <http://www.iso.org/iso/home.htm>), Standards Australia (AS Level 10, The Exchange Centre, 20 Bridge Street, Sydney, GPO Box 476, Sydney NSW 2001, + 61 2 9237 6171 <http://www.stadards.org.au>), British Standards Institution (BSI, 389 Chiswick High Road, London, W4 4AL, United Kingdom, +44 (0)20 8996 9001, <http://www.bsigroup.com>), Canadian Standards Association (CSA 5060 Spectrum Way, Suite 100, Mississauga, Ontario L4W 5N6, Canada, 800-463-6727, <http://www.csa.ca>), European Committee for Standardization (CEN CENELEC Management Centre Avenue Marnix 17 B-1000 Brussels, Belgium +32 2 550 08 11, <http://www.cen.eu/cen>), and German Engineering Standards (VDI VDI Guidelines Department, P.O. Box 10 11 39 40002, Duesseldorf, Germany, +49 211 6214-230, <http://www.vdi.eu>). The types of standards that are not considered VCS are standards developed by: the United States, e.g., California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, e.g., Department of Defense (DOD) and Department of Transportation (DOT). This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

Waste heat boiler means a device that recovers normally unused energy (i.e., hot exhaust gas) and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators. Waste heat boilers are heat exchangers generating steam from incoming hot exhaust gas from an industrial (e.g., thermal oxidizer, kiln, furnace) or power (e.g., combustion turbine, engine) equipment. Duct burners are sometimes used to increase the temperature of the incoming hot exhaust gas.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler to control emissions of particulate matter or to absorb and neutralize acid gases, such as hydrogen chloride. A wet scrubber creates an aqueous stream or slurry as a byproduct of the emissions control process.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, which is promulgated pursuant to section 112(h) of the Clean Air Act.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7513, Feb. 1, 2013]

Table 1 to Subpart JJJJJJ of Part 63—Emission Limits

As stated in § 63.11201, you must comply with the following applicable emission limits:

If your boiler is in this subcategory . . .	For the following pollutants . . .	You must achieve less than or equal to the following emission limits, except during periods of startup and shutdown . . .
1. New coal-fired boilers with heat input capacity of 30 million British thermal units per hour (MMBtu/hr) or greater that do not meet the definition of limited-use boiler	a. PM (Filterable) b. Mercury c. CO	3.0E-02 pounds(lb) per million British thermal units (MMBtu) of heat input. 2.2E-05 lb per MMBtu of heat input. 420 parts per million (ppm) by volume on a dry basis corrected to 3 percent oxygen (3-run average or 10-day rolling average).

If your boiler is in this subcategory . . .	For the following pollutants . . .	You must achieve less than or equal to the following emission limits, except during periods of startup and shutdown . . .
2. New coal-fired boilers with heat input capacity of between 10 and 30 MMBtu/hr that do not meet the definition of limited-use boiler	a. PM (Filterable) b. Mercury c. CO	4.2E-01 lb per MMBtu of heat input. 2.2E-05 lb per MMBtu of heat input. 420 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average or 10-day rolling average).
3. New biomass-fired boilers with heat input capacity of 30 MMBtu/hr or greater that do not meet the definition of seasonal boiler or limited-use boiler	PM (Filterable)	3.0E-02 lb per MMBtu of heat input.
4. New biomass fired boilers with heat input capacity of between 10 and 30 MMBtu/hr that do not meet the definition of seasonal boiler or limited-use boiler	PM (Filterable)	7.0E-02 lb per MMBtu of heat input.
5. New oil-fired boilers with heat input capacity of 10 MMBtu/hr or greater that do not meet the definition of seasonal boiler or limited-use boiler	PM (Filterable)	3.0E-02 lb per MMBtu of heat input.
6. Existing coal-fired boilers with heat input capacity of 10 MMBtu/hr or greater that do not meet the definition of limited-use boiler	a. Mercury b. CO	2.2E-05 lb per MMBtu of heat input. 420 ppm by volume on a dry basis corrected to 3 percent oxygen.

[78 FR 7517, Feb. 1, 2013]

Table 2 to Subpart JJJJJ of Part 63—Work Practice Standards, Emission Reduction Measures, and Management Practices

As stated in § 63.11201, you must comply with the following applicable work practice standards, emission reduction measures, and management practices:

If your boiler is in this subcategory . . .	You must meet the following . . .
1. Existing or new coal-fired, new biomass-fired, or new oil-fired boilers (units with heat input capacity of 10 MMBtu/hr or greater)	Minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.
2. Existing coal-fired boilers with heat input capacity of less than 10 MMBtu/hr that do not meet the definition of limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler biennially as specified in § 63.11223.
3. New coal-fired boilers with heat input capacity of less than 10 MMBtu/hr that do not meet the definition of limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct a tune-up of the boiler biennially as specified in § 63.11223.
4. Existing oil-fired boilers with heat input capacity greater than 5 MMBtu/hr that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler biennially as specified in § 63.11223.

If your boiler is in this subcategory . . .	You must meet the following . . .
5. New oil-fired boilers with heat input capacity greater than 5 MMBtu/hr that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct a tune-up of the boiler biennially as specified in § 63.11223.
6. Existing biomass-fired boilers that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler biennially as specified in § 63.11223.
7. New biomass-fired boilers that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct a tune-up of the boiler biennially as specified in § 63.11223.
8. Existing seasonal boilers	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
9. New seasonal boilers	Conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
10. Existing limited-use boilers	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
11. New limited-use boilers	Conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
12. Existing oil-fired boilers with heat input capacity of equal to or less than 5 MMBtu/hr	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
13. New oil-fired boilers with heat input capacity of equal to or less than 5 MMBtu/hr	Conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
14. Existing coal-fired, biomass-fired, or oil-fired boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up	Conduct an initial tune-up as specified in § 63.11214, and conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
15. New coal-fired, biomass-fired, or oil-fired boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up	Conduct a tune-up of the boiler every 5 years as specified in § 63.11223.
16. Existing coal-fired, biomass-fired, or oil-fired boilers (units with heat input capacity of 10 MMBtu/hr and greater), not including limited-use boilers	<p>Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (1) to (4) appropriate for the on-site technical hours listed in § 63.11237:</p>
	(1) A visual inspection of the boiler system,
	(2) An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,

If your boiler is in this subcategory . . .	You must meet the following . . .
	(3) An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,
	(4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
	(5) A list of major energy conservation measures that are within the facility's control,
	(6) A list of the energy savings potential of the energy conservation measures identified, and
	(7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[78 FR 7518, Feb. 1, 2013]

Table 3 to Subpart JJJJJJ of Part 63—Operating Limits for Boilers With Emission Limits

As stated in § 63.11201, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable emission limits using . . .	You must meet these operating limits except during periods of startup and shutdown . . .
1. Fabric filter control	a. Maintain opacity to less than or equal to 10 percent opacity (daily block average); OR b. Install and operate a bag leak detection system according to § 63.11224 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period.
2. Electrostatic precipitator control	a. Maintain opacity to less than or equal to 10 percent opacity (daily block average); OR b. Maintain the 30-day rolling average total secondary electric power of the electrostatic precipitator at or above the minimum total secondary electric power as defined in § 63.11237.
3. Wet scrubber control	Maintain the 30-day rolling average pressure drop across the wet scrubber at or above the minimum scrubber pressure drop as defined in § 63.11237 and the 30-day rolling average liquid flow rate at or above the minimum scrubber liquid flow rate as defined in § 63.11237.
4. Dry sorbent or activated carbon injection control	Maintain the 30-day rolling average sorbent or activated carbon injection rate at or above the minimum sorbent injection rate or minimum activated carbon injection rate as defined in § 63.11237. When your boiler operates at lower loads, multiply your sorbent or activated carbon injection rate by the load fraction (e.g., actual heat input divided by the heat input during the performance stack test; for 50 percent load, multiply the injection rate operating limit by 0.5).
5. Any other add-on air pollution control type.	This option is for boilers that operate dry control systems. Boilers must maintain opacity to less than or equal to 10 percent opacity (daily block average).
6. Fuel analysis	Maintain the fuel type or fuel mixture (annual average) such that the mercury emission rate calculated according to § 63.11211(c) are less than the applicable emission limit for mercury.
7. Performance stack testing	For boilers that demonstrate compliance with a performance stack test, maintain the operating load of each unit such that it does not exceed 110 percent of the average operating load recorded during the most recent performance stack test.
8. Oxygen analyzer system	For boilers subject to a CO emission limit that demonstrate compliance with an oxygen analyzer system as specified in § 63.11224(a), maintain the 30-day rolling average oxygen level at or above the minimum oxygen level as defined in § 63.11237. This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.11224(a)(7).

[78 FR 7519, Feb. 1, 2013]

Table 4 to Subpart JJJJJJ of Part 63—Performance (Stack) Testing Requirements

As stated in § 63.11212, you must comply with the following requirements for performance (stack) test for affected sources:

To conduct a performance test for the following pollutant. . .	You must. . .	Using. . .
1. Particulate Matter	a. Select sampling ports location and the number of traverse points	Method 1 in appendix A-1 to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A-2 to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A-2 to part 60 of this chapter, or ASTM D6522-00 (Reapproved 2005), ^a or ANSI/ASME PTC 19.10-1981. ^a
	d. Measure the moisture content of the stack gas	Method 4 in appendix A-3 to part 60 of this chapter.
	e. Measure the particulate matter emission concentration	Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A-3 and A-6 to part 60 of this chapter and a minimum 1 dscm of sample volume per run.
	f. Convert emissions concentration to lb/MMBtu emission rates	Method 19 F-factor methodology in appendix A-7 to part 60 of this chapter.
2. Mercury	a. Select sampling ports location and the number of traverse points	Method 1 in appendix A-1 to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A-2 to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A-2 to part 60 of this chapter, or ASTM D6522-00 (Reapproved 2005), ^a or ANSI/ASME PTC 19.10-1981. ^a
	d. Measure the moisture content of the stack gas	Method 4 in appendix A-3 to part 60 of this chapter.
	e. Measure the mercury emission concentration	Method 29, 30A, or 30B in appendix A-8 to part 60 of this chapter or Method 101A in appendix B to part 61 of this chapter or ASTM Method D6784-02. ^a Collect a minimum 2 dscm of sample volume with Method 29 of 101A per run. Use a minimum run time of 2 hours with Method 30A.
	f. Convert emissions concentration to lb/MMBtu emission rates	Method 19 F-factor methodology in appendix A-7 to part 60 of this chapter.
3. Carbon Monoxide	a. Select the sampling ports location and the number of traverse points	Method 1 in appendix A-1 to part 60 of this chapter.
	b. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A-2 to part 60 of this chapter, or ASTM D6522-00 (Reapproved 2005), ^a or ANSI/ASME PTC 19.10-1981. ^a

To conduct a performance test for the following pollutant. . .	You must. . .	Using. . .
	c. Measure the moisture content of the stack gas	Method 4 in appendix A-3 to part 60 of this chapter.
	d. Measure the carbon monoxide emission concentration	Method 10, 10A, or 10B in appendix A-4 to part 60 of this chapter or ASTM D6522-00 (Reapproved 2005) ^a and a minimum 1 hour sampling time per run.

^a Incorporated by reference, see § 63.14.

Table 5 to Subpart JJJJJJ of Part 63—Fuel Analysis Requirements

As stated in § 63.11213, you must comply with the following requirements for fuel analysis testing for affected sources:

To conduct a fuel analysis for the following pollutant . . .	You must. . .	Using . . .
1. Mercury	a. Collect fuel samples	Procedure in § 63.11213(b) or ASTM D2234/D2234M ^a (for coal) or ASTM D6323 ^a (for biomass) or equivalent.
	b. Compose fuel samples	Procedure in § 63.11213(b) or equivalent.
	c. Prepare composited fuel samples	EPA SW-846-3050B ^a (for solid samples) or EPA SW-846-3020A ^a (for liquid samples) or ASTM D2013/D2013M ^a (for coal) or ASTM D5198 ^a (for biomass) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 ^a (for coal) or ASTM E711 ^a (for biomass) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 ^a or ASTM E871 ^a or equivalent.
	f. Measure mercury concentration in fuel sample	ASTM D6722 ^a (for coal) or EPA SW-846-7471B ^a (for solid samples) or EPA SW-846-7470A ^a (for liquid samples) or equivalent.
	g. Convert concentrations into units of lb/MMBtu of heat content	

^a Incorporated by reference, see § 63.14.

Table 6 to Subpart JJJJJJ of Part 63—Establishing Operating Limits

As stated in § 63.11211, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. PM or mercury	a. Wet scrubber operating parameters	Establish site-specific minimum scrubber pressure drop and minimum scrubber liquid flow rate operating limits according to § 63.11211(b)	Data from the pressure drop and liquid flow rate monitors and the PM or mercury performance stack tests	(a) You must collect pressure drop and liquid flow rate data every 15 minutes during the entire period of the performance stack tests;
				(b) Determine the average pressure drop and liquid flow rate for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.
	b. Electrostatic precipitator operating parameters	Establish a site-specific minimum total secondary electric power operating limit according to § 63.11211(b)	Data from the secondary electric power monitors and the PM or mercury performance stack tests	(a) You must collect secondary electric power data every 15 minutes during the entire period of the performance stack tests;
				(b) Determine the average total secondary electric power for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.
2. Mercury	Dry sorbent or activated carbon injection rate operating parameters	Establish a site-specific minimum sorbent or activated carbon injection rate operating limit according to § 63.11211(b)	Data from the sorbent or activated carbon injection rate monitors and the mercury performance stack tests	(a) You must collect sorbent or activated carbon injection rate data every 15 minutes during the entire period of the performance stack tests;
				(b) Determine the average sorbent or activated carbon injection rate for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
				(c) When your unit operates at lower loads, multiply your sorbent or activated carbon injection rate by the load fraction (e.g., actual heat input divided by heat input during performance stack test, for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
3. CO	Oxygen	Establish a unit-specific limit for minimum oxygen level	Data from the oxygen analyzer system specified in § 63.11224(a)	(a) You must collect oxygen data every 15 minutes during the entire period of the performance stack tests;
				(b) Determine the average hourly oxygen concentration for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.
4. Any pollutant for which compliance is demonstrated by a performance stack test	Boiler operating load	Establish a unit-specific limit for maximum operating load according to § 63.11212(c)	Data from the operating load monitors (fuel feed monitors or steam generation monitors)	(a) You must collect operating load data (fuel feed rate or steam generation data) every 15 minutes during the entire period of the performance test.
				(b) Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.

[78 FR 7520, Feb. 1, 2013]

Table 7 to Subpart JJJJJ of Part 63—Demonstrating Continuous Compliance

As stated in § 63.11222, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to § 63.11224(e) and § 63.11221; and
	b. Reducing the opacity monitoring data to 6-minute averages; and
	c. Maintaining opacity to less than or equal to 10 percent (daily block average).

If you must meet the following operating limits . . .	You must demonstrate continuous compliance by . . .
2. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to § 63.11224(f) and operating the fabric filter such that the requirements in § 63.11222(a)(4) are met.
3. Wet Scrubber Pressure Drop and Liquid Flow Rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.11224 and 63.11221; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average pressure drop and liquid flow rate at or above the minimum pressure drop and minimum liquid flow rate according to § 63.11211.
4. Dry Scrubber Sorbent or Activated Carbon Injection Rate	a. Collecting the sorbent or activated carbon injection rate monitoring system data for the dry scrubber according to §§ 63.11224 and 63.11221; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average sorbent or activated carbon injection rate at or above the minimum sorbent or activated carbon injection rate according to § 63.11211.
5. Electrostatic Precipitator Total Secondary Electric Power	a. Collecting the total secondary electric power monitoring system data for the electrostatic precipitator according to §§ 63.11224 and 63.11221; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average total secondary electric power at or above the minimum total secondary electric power according to § 63.11211.
6. Fuel Pollutant Content	a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to § 63.11213 as applicable; and
	b. Keeping monthly records of fuel use according to §§ 63.11222(a)(2) and 63.11225(b)(4).
7. Oxygen content	a. Continuously monitoring the oxygen content of flue gas according to § 63.11224 (This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in § 63.11224(a)(7)); and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average oxygen content at or above the minimum oxygen level established during the most recent CO performance test.
8. CO emissions	a. Continuously monitoring the CO concentration in the combustion exhaust according to §§ 63.11224 and 63.11221; and
	b. Correcting the data to 3 percent oxygen, and reducing the data to 1-hour averages; and
	c. Reducing the data from the hourly averages to 10-day rolling averages; and
	d. Maintaining the 10-day rolling average CO concentration at or below the applicable emission limit in Table 1 to this subpart.
9. Boiler operating load	a. Collecting operating load data (fuel feed rate or steam generation data) every 15 minutes; and
	b. Reducing the data to 30-day rolling averages; and
	c. Maintaining the 30-day rolling average at or below the operating limit established during the performance test according to § 63.11212(c) and Table 6 to this subpart.

Table 8 to Subpart JJJJJJ of Part 63—Applicability of General Provisions to Subpart JJJJJJ

As stated in § 63.11235, you must comply with the applicable General Provisions according to the following:

General provisions cite	Subject	Does it apply?
§ 63.1	Applicability	Yes.
§ 63.2	Definitions	Yes. Additional terms defined in § 63.11237.
§ 63.3	Units and Abbreviations	Yes.
§ 63.4	Prohibited Activities and Circumvention	Yes.
§ 63.5	Preconstruction Review and Notification Requirements	No
§ 63.6(a), (b)(1)-(b)(5), (b)(7), (c), (f)(2)-(3), (g), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes.
§ 63.6(e)(1)(i)	General Duty to minimize emissions	No. See § 63.11205 for general duty requirement.
§ 63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	No.
§ 63.6(e)(3)	SSM Plan	No.
§ 63.6(f)(1)	SSM exemption	No.
§ 63.6(h)(1)	SSM exemption	No.
§ 63.6(h)(2) to (9)	Determining compliance with opacity emission standards	Yes.
§ 63.7(a), (b), (c), (d), (e)(2)-(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes.
§ 63.7(e)(1)	Performance testing	No. See § 63.11210.
§ 63.8(a), (b), (c)(1), (c)(1)(ii), (c)(2) to (c)(9), (d)(1) and (d)(2), (e), (f), and (g)	Monitoring Requirements	Yes.
§ 63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No.
§ 63.8(c)(1)(iii)	Requirement to develop SSM Plan for CMS	No.
§ 63.8(d)(3)	Written procedures for CMS	Yes, except for the last sentence, which refers to an SSM plan. SSM plans are not required.
§ 63.9	Notification Requirements	Yes, excluding the information required in § 63.9(h)(2)(i)(B), (D), (E) and (F). See § 63.11225.
§ 63.10(a) and (b)(1)	Recordkeeping and Reporting Requirements	Yes.
§ 63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups or shutdowns	No.
§ 63.10(b)(2)(ii)	Recordkeeping of malfunctions	No. See § 63.11225 for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunctions.
§ 63.10(b)(2)(iii)	Maintenance records	Yes.
§ 63.10(b)(2)(iv) and (v)	Actions taken to minimize emissions during SSM	No.
§ 63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes.

General provisions cite	Subject	Does it apply?
§ 63.10(b)(2)(vii) to (xiv)	Other CMS requirements	Yes.
§ 63.10(b)(3)	Recordkeeping requirements for applicability determinations	No.
§ 63.10(c)(1) to (9)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(10)	Recording nature and cause of malfunctions	No. See § 63.11225 for malfunction recordkeeping requirements.
§ 63.10(c)(11)	Recording corrective actions	No. See § 63.11225 for malfunction recordkeeping requirements.
§ 63.10(c)(12) and (13)	Recordkeeping for sources with CMS	Yes.
§ 63.10(c)(15)	Allows use of SSM plan	No.
§ 63.10(d)(1) and (2)	General reporting requirements	Yes.
§ 63.10(d)(3)	Reporting opacity or visible emission observation results	No.
§ 63.10(d)(4)	Progress reports under an extension of compliance	Yes.
§ 63.10(d)(5)	SSM reports	No. See § 63.11225 for malfunction reporting requirements.
§ 63.10(e)	Additional reporting requirements for sources with CMS	Yes.
§ 63.10(f)	Waiver of recordkeeping or reporting requirements	Yes.
§ 63.11	Control Device Requirements	No.
§ 63.12	State Authority and Delegation	Yes.
§ 63.13-63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§ 63.1(a)(5), (a)(7)-(a)(9), (b)(2), (c)(3)-(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)-(4), (c)(9)	Reserved	No.

[76 FR 15591, Mar. 21, 2011, as amended at 78 FR 7521, Feb. 1, 2013]

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

**Technical Support Document (TSD) for a
Minor Source Operating Permit (MSOP)**

Source Description and Location
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Source Name:	StemWood Manufacturing, L.L.C.
Source Location:	2710 Grant Line Road, New Albany, Indiana 47150
County:	Floyd
SIC Code:	2421 (Sawmills and Planing Mills, General) 2435 (Hardwood Veneer and Plywood)
Operation Permit No.:	M043-34319-00046
Permit Reviewer:	Jenny Liljegren

On March 19, 2014, the Office of Air Quality (OAQ) received an application from StemWood Manufacturing, L.L.C., related to the operation of an existing wood veneer and lumber manufacturing plant. This plant is owned by StemWood Corporation, including the property, the buildings, and all of the equipment installed prior to 2006. StemWood Corporation leases this plant to StemWood Manufacturing, L.L.C. StemWood Manufacturing, L.L.C., operates this plant and owns all of the equipment installed at the plant since January 1, 2006.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Operation Permit No. 22-11-6-0032 and Operation Permit No. 22-111-6-0033, both issued on December 10, 1974, by the State of Indiana Air Pollution Control Board and both expired on November 1, 1976.

County Attainment Status

The source is located in Floyd County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹
PM _{2.5}	Basic nonattainment designation effective federally April 5, 2005, for PM _{2.5} .
PM _{2.5}	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard.
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
¹ Attainment effective October 23, 2001, for the 1-hour ozone standard for the Louisville area, including Clark County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standard (NAAQS) for purposes of 40 CFR Part 51, Subpart X*. The 1-hour standard 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. Floyd 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}**
U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Floyd County as nonattainment for PM_{2.5}. On March 7, 2005, the Indiana Attorney General's Office, on behalf of IDEM, filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM_{2.5} promulgated on May 8, 2008. These rules became effective on July 15, 2008. Therefore, direct PM_{2.5}, SO₂, and NO_x emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5.
- (c) **Other Criteria Pollutants**
Floyd County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

- (a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.
- (b) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Background and Description of Emission Units

The Office of Air Quality (OAQ) has reviewed an application, submitted by StemWood Manufacturing, L.L.C., on March 19, 2014, relating to the operation of an existing wood veneer and lumber manufacturing plant.

The following is a list of the emission units and pollution control devices:

- (a) One (1) wood veneer and lumber manufacturing plant, with a maximum bottleneck throughput of 1,000 board-feet per hour, consisting of the following woodworking equipment:
 - (1) One (1) debarker for removing bark from fresh logs, identified as Unit 1, constructed in 1994, uncontrolled and exhausting outdoors.
 - (2) One (1) 7-foot bandmill head rig for sawing logs, identified as Unit 2a, constructed in 1968, with sawdust collected by Cyclone #1, and exhausting outdoors.
 - (3) One (1) edger for trimming edges of lumber lengthwise, identified as Unit 2b, constructed in 1994, uncontrolled and exhausting indoors.
 - (4) One (1) double end trim saw for trimming ends of boards to standard length, identified as Unit 2c, constructed prior to 1989, uncontrolled and exhausting indoors.
 - (5) One (1) sawmill hog for pulverizing wood waste into chips, identified as Unit 2d, constructed in 2001, with sawdust collected by Cyclone #1, and exhausting outdoors.

- (6) One (1) slicer for slicing flitch into veneer sheets, identified as Unit 3b, constructed in 1967, with negligible particulate emissions.
- (7) One (1) split saw for sawing partially sliced flitch in two, identified as Unit 3c, constructed in 2007, uncontrolled and exhausting indoors.
- (8) One (1) slicer for slicing flitch into veneer sheets, identified as Unit 3d, constructed in 2005, with negligible particulate emissions.
- (9) One (1) half-round slicer for slicing flitch into veneer sheets, identified as Unit 3e, constructed in 1949, with negligible particulate emissions.
- (10) One (1) channel saw for channeling flitch so that the flitch fastens to the half-round slicer (Unit 3e), identified as Unit 3f, constructed in 2005, uncontrolled and exhausting indoors.
- (11) One (1) veneer mill clipper for clipping out veneer defects, identified as Unit 3h, constructed in 1946, with negligible particulate emissions.
- (12) One (1) veneer mill hog for chopping scrap sheets of veneer into chips, identified as Unit 3i, constructed in 2008, with sawdust collected by Cyclone #2, and exhausting outdoors.
- (13) One (1) radial arm crating saw for sawing crating material to size, identified as Unit 3j, constructed in 1968, with sawdust collected by Bag Collector #1, and exhausting indoors.
- (14) Two (2) CBT clippers for clipping veneer edges lengthwise, identified as Unit 3k and Unit 3l, respectively, constructed in 2007, with negligible particulate emissions.
- (15) Two (2) CBT end clippers for clipping veneer bundles to length, identified as Unit 3m and Unit 3n, respectively, constructed in 2007, with negligible particulate emissions.
- (16) One (1) CBT veneer hog for pulverizing dry veneer waste into chips, identified as Unit 3o, constructed in 2007, with sawdust collected by Cyclone #3, and exhausting outdoors.
- (17) One (1) veneer press for flattening buckled or high-moisture content veneer, identified as Unit 3p, constructed in 1962, uncontrolled and exhausting indoors.
- (18) One (1) veneer knife grinder for grinding a sharp edge on used veneer knives and bars, identified as Unit 3q, constructed in 1967, uncontrolled and exhausting indoors.
- (19) One (1) saw for re-sawing backing boards, identified as the green shed re-saw, Unit 6a, constructed in 1994, with sawdust collected by Cyclone #4, and exhausting outdoors.
- (20) One (1) radial arm saw for miscellaneous cutting of wood to length, identified as the green shed radial arm saw, Unit 6b, constructed prior to 1989, with sawdust collected by Cyclone #4, and exhausting outdoors.
- (21) One (1) straight line rip saw for miscellaneous cutting wood to width, identified as the green shed straight line rip saw, Unit 6c, constructed prior to 1989, with sawdust collected by Cyclone #4, and exhausting outdoors.
- (22) One (1) planer for surfacing lumber to customer specifications, identified as the green shed planer, Unit 6d, constructed in 2010, with sawdust collected by Cyclone #4, and exhausting outdoors.
- (23) One (1) radial arm saw for cutting defects off the ends of boards, identified as the dry shed radial arm saw, Unit 6e, constructed in 2000, with sawdust collected by Bag Collector #2, and exhausting indoors.

- (24) One (1) straight line rip saw for cutting defects off the edges of boards, identified as the dry shed straight line rip saw, Unit 6f, constructed in 2000, with sawdust collected by Bag Collector #2, and exhausting indoors.
- (25) One (1) sawmill fluting saw for sawing a channel in sticks used for stacking lumber, identified as Unit 6g, constructed prior to 1989, with sawdust collected by Cyclone #1, and exhausting outdoors.
- (26) One (1) bandsaw for sawing scrap boards into paddles for drag chain conveyors, identified as the oil room bandsaw, Unit 6h, constructed prior to 1989, uncontrolled and exhausting indoors.
- (b) Twelve (12) vats for soaking and heating a typical volume of 4,000 board-feet per day of flitch for slicing, identified as Units 3a1 through 3a12, constructed from 1945 to 1968, each with a maximum capacity of 10,000-gallons of water. Air emissions from these units are assumed to be negligible.
- (c) Two (2) kilns for drying air-dried lumber to 8% moisture content, identified as Unit 4a1 and 4a2, respectively, constructed in 1949, each with a maximum bottleneck throughput of 30,000 board-feet per month, uncontrolled and exhausting outside via roof vents.
- (d) Two (2) kilns for drying air-dried lumber to 8% moisture content, identified as Unit 4b1 and 4b2, respectively, constructed in 1955, each with a maximum bottleneck throughput of 45,000 board-feet per month, uncontrolled and exhausting outside via roof vents.
- (e) One (1) veneer dryer for drying sheets of veneer to 10% moisture content, identified as Unit 3g, constructed in 1993, with a maximum throughput of 39 cubic feet per hour, uncontrolled and exhausting outdoors via roof vents.
- (f) One (1) wood-fired boiler for producing steam, fired by wood scrap, identified as Unit 5, constructed in 1960, with a maximum heat input capacity of 14.43 MMBtu/hour, uncontrolled and exhausting to Stack 1.

Note: The Permittee will only combust clean wood in the wood-fired boiler. Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

This unit is considered an affected source under 40 CFR 63, Subpart JJJJJJ.

- (g) One (1) ash conveyance and disposal system for transferring ash from the boiler to hoppers, identified as Unit 7, constructed in 1960 and reconstructed in 2000, with a potential ash capacity of 1,303.16 tons per year, uncontrolled and exhausting outdoors. The ash from the hoppers is manually discharged into a wheelbarrow and transferred to an ash dumpster. Approximately 3 cubic yards of ash are produced per month and applied to the ground on the property.
- (h) One (1) electric drill press for drilling bolt holes in wood paddles for drag chain conveyors, identified as the oil room drill press, Unit 6i, constructed prior to 1989, with a typical operation time of one (1) hour per month. Air emissions from this unit are assumed to be negligible.
- (i) One (1) autoclave for steaming lumber in a closed vessel for coloration, identified as Unit 6j, constructed in 1966. Air emissions from this unit are assumed to be negligible.

- (j) One (1) de-aerator tank for collecting condensate return and pre-heating new boiler water, identified as Unit 6k, constructed in 1966. Air emissions from this unit are assumed to be negligible.
- (k) One (1) condensate return tank for collecting veneer mill condensate and pumping it to the de-aerator tank, identified as Unit 6l, constructed prior to 1989. Air emissions from this unit are assumed to be negligible.
- (l) Three (3) electric air compressors for air-powered tools and other air needs when the mill is not operating, identified as air compressor #1 (Unit 6m), air compressor #2 (Unit 6n), and air compressor #3 (Unit 6o), constructed in 1998, 1998, and 1988, respectively, with maximum capacities of 75 HP, 30 HP, and 75 HP, respectively. Air emissions from these units are assumed to be negligible.
- (m) Three (3) natural gas-fired space heaters, identified as natural gas heater sawmill #1 (Unit 6p), natural gas heater sawmill #2 (Unit 6q), and natural gas heater oil room (Unit 6r), each constructed prior to 1983, with maximum capacities of 0.16 MMBTU/hr, 0.20 MMBTU/hr, and 0.10 MMBTU/hr, respectively, uncontrolled and exhausting indoors.
- (n) Welding and cutting stations, including three (3) metal inert gas welding stations, each with a maximum electrode consumption of 3 pounds per hour, one (1) oxyacetylene flame cutting station with a maximum metal thickness cut of 1.5 inches and a maximum metal cutting rate of 20 inches per minute, and one (1) plasma flame cutting station with a maximum metal thickness cut of 1.5 inches and a maximum metal cutting rate of 20 inches per minute, uncontrolled and exhausting indoors.
- (o) One (1) degreaser with a maximum usage of 0.004 gallons of kerosene per unit, at a rate of 1 unit per hour, equipped with a remote solvent reservoir, and exhausting indoors.
- (p) One (1) 290-gallon gasoline storage tank installed in 1990, located outdoors and above ground with a retention tank.

This unit is considered an affected facility under 40 CFR 63, Subpart CCCCCC.
- (q) One (1) 550-gallon diesel storage tank, installed prior to 1989, located outdoors and above ground with a retention tank.
- (r) Paved and unpaved roads.
- (s) Conveyors.
 - (1) One (1) uncovered, outdoor conveyor for logs, identified as the log conveyor.
 - (2) One (1) uncovered, outdoor conveyor to convey bark to a 40-ft trailer, identified as the bark conveyor.
 - (3) One (1) uncovered, outdoor conveyor for conveying debarked logs to the sawmill, identified as the debarked log conveyor.
 - (4) One (1) indoor conveyor for conveying slabs and trimmings down a chute to the sawmill hog, identified as the sawmill trimmings conveyor.
 - (5) One (1) covered, outdoor, drag chain conveyor for conveying clean wood chips from the sawmill to the boiler room, identified as the double-wide conveyor.
 - (6) One (1) indoor conveyor for conveying solid flitch to the veneer mill, identified as the flitch conveyor.

- (7) One (1) indoor subfloor conveyor for conveying clippings to the veneer mill hog, identified as the veneer clippings conveyor.
- (8) One (1) covered, outdoor, drag chain conveyor for conveying clean wood chips from the veneer mill to the boiler room, identified as the veneer-to-boiler conveyor.
- (9) One (1) indoor, shaker/vibrating conveyor for separating usable wood chips by size and conveying them to the boiler feed bin, identified as the shaker conveyor.
- (10) One (1) indoor, drag chain conveyor for conveying clean wood chips to the auger conveyor, identified as the pre-auger conveyor.
- (11) One (1) indoor, computer-controlled auger conveyor for conveying clean wood chips into the boiler blower feeder, identified as the auger conveyor.
- (12) One (1) return conveyor running from the boiler wood chip room to the sawmill for conveying wood scrap generated by the wood manufacturing processes that is too large in size to pass through the vibrating conveyor screen back to the sawmill hog to be chopped again into smaller fragments.

Disconnected Emission Units

The following emission units have been disconnected from the natural gas lines at the plant and are no longer being used.

- (a) One (1) 30 HP natural gas-fired boiler, constructed in 1979, located in the press room, manufactured by Industrial Boiler Company, Thomasville, GA, Model #PFDH30 CG02.
- (b) Five (5) natural gas-fired overhead space heaters, constructed prior to 1989, located in the veneer mill near slicer 1 (Unit 3b).
- (c) Six (6) natural gas-fired overhead space heaters, constructed prior to 1989, located on the second floor of the sawmill.

"Integral Part of the Process" Determination

In October 1993 a Final Order Granting Summary Judgment was signed by Administrative Law Judge ("ALJ") Garrettson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls. Based on this ruling, potential emissions for particulate matter from the woodworking operations were calculated after consideration of the controls for determining operating permit level purposes and determining the applicability of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the woodworking operations were calculated before consideration of the controls.

Enforcement Issues

There are no pending enforcement actions related to this source.

Process Bottleneck

Based on information provided by the source, the bandmill head rig, identified as Unit 2a, is the bottleneck in the wood veneer and lumber manufacturing process, because all of the products StemWood Manufacturing, L.L.C., produces must pass through the bandmill head rig. The dry kilns are also a factor in the bottleneck. The maximum bottleneck throughput of the 4 dry kilns, collectively, is 150,000 board-feet per month. Even though it is possible to operate the sawmill more than a single shift, it would produce more lumber than the kilns can process. Therefore, the bandmill head rig processes no more than 1,000 board-feet per hour. The subsequent veneer production is further bottlenecked by the veneer dryer, identified as Unit 3g, which can only process 265 board-feet per hour. The veneer dryer, identified as Unit 3g, is the bottleneck in the veneer process, because all the veneer must be dried for it to be a usable product. Therefore, the veneer mill processes no more than 265 board-feet per hour.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – MSOP

The following table reflects the unlimited potential to emit (PTE) of the entire source after integral woodworking controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	60.28
PM10 ⁽¹⁾	45.82
PM2.5	40.38
SO ₂	1.58
NO _x	14.10
VOC	9.08
CO	38.94
GHGs as CO ₂ e	13,665
Total HAPs	3.30
Highest Single HAP	1.20 (hydrogen chloride)

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10) and particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (PM2.5), not particulate matter (PM), are each considered as a "regulated air pollutant".

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of PM10, PM2.5, and CO are each less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard (NSPS) for Fossil-Fuel-Fired Steam Generators, 40 CFR 60, Subpart D (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since this unit does not have a heat input capacity greater than 250 MMBTU/hr, and this unit does not burn fossil fuels. This unit burns wood scrap.
- (b) The requirements of the New Source Performance Standard (NSPS) for Electric Utility Steam Generating Units, 40 CFR 60, Subpart Da (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since this unit is not considered an electric utility steam-generating unit as defined in §60.41Da.
- (c) The requirements of the New Source Performance Standard (NSPS) for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since, although this unit is considered a steam generating unit as defined in §60.41b, this unit does not have 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)).

A steam generating unit, as defined in §60.41b, means a device that combusts any fuel or byproduct/waste and produces steam or heats water or heats any heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

- (d) The requirements of the New Source Performance Standard (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since, although this unit is considered a steam generating unit as defined in §60.41c and it 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), construction, modification, or reconstruction of this unit did not commence after June 9, 1989. The boiler was constructed in 1960 and the ash hopper system that came with the original boiler in 1960 was rebuilt in 2000 (not the boiler). The boiler was originally designed to burn natural gas or wood. The natural gas burner system attachment was removed in the early 1990's (after June 9, 1989), so that this boiler could only burn wood waste. This is not considered a modification as defined in §60.2.

Steam generating unit, as defined in §60.41c, 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.

- (e) The requirements of the New Source Performance Standard (NSPS) for Municipal Waste Combustors for Which Construction Is Commenced After December 20, 1989 and On or Before September 20, 1994, 40 CFR 60, Subpart Ea, (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since this unit is not considered a municipal waste combustor or a municipal waste combustor unit as defined in §60.51a, and this unit was not constructed after December 20, 1989, and on or before September 20, 1994. This unit was constructed in 1960 and only burns clean wood scrap.
- (f) The requirements of the New Source Performance Standard (NSPS) for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996, 40 CFR 60, Subpart Eb, (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since this unit is not

considered a municipal waste combustor or a municipal waste combustor unit as defined in §60.51b, and this unit was not constructed after September 20, 1994, or modified or reconstructed after June 19, 1996. This unit was constructed in 1960 and only burns clean wood scrap.

- (g) The requirements of the New Source Performance Standard (NSPS) for New Stationary Sources: Hospital/Medical/Infectious Waste Incinerators, 40 CFR 60, Subpart Ec, (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since this unit is not considered a hospital/medical/infectious waste incinerator as defined in §60.51c, and this unit was not constructed after June 20, 1996. This unit was constructed in 1960 and only burns clean wood scrap.
- (h) The requirements of the New Source Performance Standard 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 (326 IAC 12), are not included in the permit for the two (2) fuel storage tanks for fuel transfer and dispensing, including one (1) 290-gallon gasoline storage tank, and one (1) 550-gallon diesel storage tank, since neither has a storage capacity greater than 151,412 liters (40,000 gallons).
- (i) The requirements of the New Source Performance Standard 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 (326 IAC 12), are not included in the permit for the two (2) fuel storage tanks for fuel transfer and dispensing, including one (1) 290-gallon gasoline storage tank, and one (1) 550-gallon diesel storage tank, since neither has a storage capacity greater than 151,412 liters (40,000 gallons).
- (j) The requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60, Subpart Kb (326 IAC 12), are not included in the permit for the two (2) fuel storage tanks for fuel transfer and dispensing, including one (1) 290-gallon gasoline storage tank, and one (1) 550-gallon diesel storage tank, since neither has a storage capacity greater than or equal to 75 cubic meters (19,812.9 gallons).
- (k) The requirements of the New Source Performance Standard for New Residential Wood Heaters, 40 CFR 60, Subpart AAA (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since, this unit was not manufactured on or after July 1, 1988, or sold at retail on or after July 1, 1990 and is not considered a residential wood heater as defined by 40 CFR 60.531. In addition, the wood-fired boiler (Unit 5) is not subject to this rule, since boilers are not considered affected facilities and are not subject to this rule pursuant to 40 CFR 60.530(h)(2).
- (l) The requirements of the New Source Performance Standard (NSPS) for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001, 40 CFR 60, Subpart AAAA (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since this unit is not considered a municipal waste combustion unit as defined in §60.1465, and this unit was not constructed after August 30, 1999, or modified or reconstructed after June 6, 2001. This unit was constructed in 1960 and only burns clean wood scrap.
- (m) The requirements of the New Source Performance Standard for Commercial and Industrial Solid Waste Incineration Units, 40 CFR 60, Subpart CCCC (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since, this unit is not considered a commercial and industrial solid waste incineration unit as defined in §60.2265, and this unit was not constructed after November 30, 1999, or modified or reconstructed after June 1, 2001. This unit was constructed in 1960. This unit is not considered a commercial and industrial solid waste incineration unit for the following reasons:

1. Under 40 CFR 60.2265 "Incinerator" means any furnace used in the process of combusting solid waste as defined in 40 CFR part 241 for the purpose of reducing the volume of the waste by removing combustible matter.
 - (A) StemWood Manufacturing, L.L.C., only burns clean wood scrap as fuel in the wood-fired boiler (Unit 5).
 - (B) The clean wood scrap does not meet the definition of solid waste as defined in 40 CFR 258.2 or discarded material as defined in 40 CFR 60.2265 but, rather meets the definition of a "non-hazardous secondary material" as defined in 40 CFR 241.3.
 - (c) The wood scrap meets all of the legitimacy criteria for non-hazardous secondary materials, as specified in 40 CFR 241.3(d)(1), because the wood scrap is clean wood, is viewed as a valued commodity, has a meaningful heating value, and is used as a fuel in a combustion unit that recovers energy.
 - (D) Non-hazardous secondary materials that remain within the control of the generator, are used as a fuel in a combustion unit, and that meet the legitimacy criteria specified in paragraph (d)(1) of this section are not deemed a solid waste when combusted. In this case the non-hazardous secondary material is not discarded wood but clean wood scrap that is deemed a valued commodity as it saves the source from paying to dispose of the wood waste and is used for energy recovery (the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating as defined in 40 CFR 60.2265).
 2. The wood-fired boiler (Unit 5) does not meet the definition of a Commercial and Industrial Solid Waste Incinerator (CISWI). Under 40 CFR 60.2265, a commercial and industrial solid waste incineration (CISWI) unit means any distinct operating unit of any commercial or industrial facility that combusts, or has combusted in the preceding 6 months, any solid waste as defined in 40 CFR part 241). The clean wood scrap is a non-hazardous secondary material that has not been discarded (for purposes of this subpart and 40 CFR 60, subpart DDDD, only, burned in an incineration unit without energy recovery) but is used for energy recovery, to provide process heat to dry wood.
 3. The wood-fired boiler (Unit 5) does not burn "commercial or industrial waste". Under 40 CFR 241 solid waste means any garbage, or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. The source burns non-hazardous secondary material (in the form of clean wood scrap from the woodworking operations) which is not a discarded material, but a valued commodity. The wood-waste is combusted as fuel for energy recovery to dry wood.
- (n) The requirements of the New Source Performance Standard for Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units, 40 CFR 60, Subpart DDDD (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since, this unit is not considered a commercial and industrial solid waste incineration unit as defined in §60.2875.
- (o) The requirements of the New Source Performance Standard for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006, 40 CFR 60, Subpart EEEE (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since, this unit is not considered a municipal waste combustion unit or other solid waste incineration unit as defined in

§60.2977, and this unit was not constructed after December 9, 2004, or modified or reconstructed on or after June 16, 2006. This unit was constructed in 1960 and only burns clean wood scrap.

- (p) The requirements of the New Source Performance Standard for Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units That Commenced Construction On or Before December 9, 2004, 40 CFR 60, Subpart FFFF (326 IAC 12), are not included in the permit for the wood-fired boiler (Unit 5), since, this unit is not considered a municipal waste combustion unit or other solid waste incineration unit as defined in §60.3078, and pursuant to 60.2992(a), the owner or operator of this unit did not make changes that meet the definition of modification or reconstruction on or after June 16, 2006. This unit was constructed in 1960 and only burns clean wood scrap.
- (q) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning, 40 CFR 63, Subpart T (326 IAC 20-6), are not included in the permit for the degreasing operation, since the source does not use halogenated solvents.
- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Wood Furniture Manufacturing Operations, 40 CFR 63, Subpart JJ (326 IAC 20-14), are not included in the permit, since the source is not engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components as defined in §63.801, and the source is not a major source of HAPs as defined in 40 CFR part 63, subpart A, §63.2.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) from Hazardous Waste Combustors, 40 CFR 63, Subpart EEE (326 IAC 20-28), are not included in the permit for the wood-fired boiler (Unit 5), since this unit is not considered a hazardous waste combustor as defined in §63.1201.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Plywood and Composite Wood Products, 40 CFR 63, Subpart DDDD, are not included in the permit, since, although this source is considered a plywood and composite wood products manufacturing facility as defined in §63.2292, this source is not a major source of HAPs as defined in 40 CFR part 63, subpart A, §63.2.

A plywood and composite wood products (PCWP) manufacturing facility, as defined in §63.2292, is a facility that manufactures plywood and/or composite wood products by bonding wood material (fibers, particles, strands, veneers, etc.) or agricultural fiber, generally with resin under heat and pressure, to form a structural panel or engineered wood product. Plywood and composite wood products manufacturing facilities also include facilities that manufacture dry veneer and lumber kilns located at any facility. Plywood and composite wood products include, but are not limited to, plywood, veneer, particleboard, oriented strandboard, hardboard, fiberboard, medium density fiberboard, laminated strand lumber, laminated veneer lumber, wood I-joists, kiln-dried lumber, and glue-laminated beams.

- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD (326 IAC 20-95), are not included in the permit, since, although the wood-fired boiler (Unit 5) is considered a boiler as defined in §63.7575, this source is not a major source of HAPs as defined in 40 CFR part 63, subpart A, §63.2.

A boiler, as defined in §63.7575, means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel

and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in §241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers are excluded from this definition.

- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Coal- and Oil-Fired Electric Utility Steam Generating Units, 40 CFR 63, Subpart UUUUU, are not included in the permit, since the wood-fired boiler (Unit 5) is not considered an electric utility steam generating unit as defined in §63.10042.
- (g) The gasoline storage tank is subject to the National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, 40 CFR 63, Subpart CCCCCC, because this source is an area source of HAPs and the gasoline storage tank is considered a gasoline dispensing facility as defined in §63.11132.

A gasoline dispensing facility (GDF), as defined in §63.11132, 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.

The unit subject to this rule includes the following:

One (1) 290-gallon gasoline storage tank installed in 1990, located outdoors and above ground with a retention tank.

Applicable portions of the NESHAP are the following:

- (1) 40 CFR 63.11110
- (2) 40 CFR 63.11111(a), (b), (e), (f), (h), (j), and (k)
- (3) 40 CFR 63.11112
- (4) 40 CFR 63.11113(b), (c), (f)
- (5) 40 CFR 63.11115(a)
- (6) 40 CFR 63.11116
- (7) 40 CFR 63.11130
- (8) 40 CFR 63.11131
- (9) 40 CFR 63.11132
- (10) 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 storage tank except as otherwise specified in 40 CFR 63, Subpart CCCCCC.

- (h) The wood-fired boiler (Unit 5) is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ, because this unit is considered a boiler as defined in §63.11237, and this source is an area source of HAPs.

A boiler, as defined in §63.11237, means an enclosed device using controlled flame combustion in which water is heated to recover thermal energy in the form of steam and/or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in §241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers, process heaters, and autoclaves are excluded from the definition of Boiler. Industrial boiler means a boiler used in

manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

The unit subject to this rule includes the following:

One (1) wood-fired boiler for producing steam, fired by wood scrap, identified as Unit 5, constructed in 1960, with a maximum heat input capacity of 14.43 MMBtu/hour, uncontrolled and exhausting to Stack 1.

Applicable portions of the NESHAP are the following:

- (1) 40 CFR 63.11193
- (2) 40 CFR 63.11194(a) (b) and (f)
- (3) 40 CFR 63.11196(a)
- (4) 40 CFR 63.11200
- (5) 40 CFR 63.11201(b) and (d)
- (6) 40 CFR 63.11205(a)
- (7) 40 CFR 63.11210(c) and (h)
- (8) 40 CFR 63.11214(b) and (c)
- (9) 40 CFR 63.11223(a) and (b)
- (10) 40 CFR 63.11225(a), (b), (c), (d), (f) and (g)
- (11) 40 CFR 63.11235
- (12) 40 CFR 63.11236
- (13) 40 CFR 63.11237
- (14) Table 2 (Items 6 and 16)
- (15) Table 8

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the wood-fired boiler (Unit 5) except as otherwise specified in 40 CFR 63, Subpart JJJJJJ.

- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Wood Preserving Area Sources, 40 CFR 63, Subpart QQQQQQ, are not included in the permit, since, although the source is an area source of HAPs, the source is not considered a wood preserving operation as defined in §63.11433. Under 40 CFR 63.11433, "wood preserving" means the pressure or thermal impregnation of chemical into wood to provide effective long-term resistance to attack by fungi, bacteria, insects, and marine borers. In the wood treating process at this source, no chemical are impregnated in the wood.
- (j) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

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

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.

- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))
This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated criteria pollutants are less than 250 tons per year and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1). The potential to emit greenhouse gases (GHGs) is less than the PSD subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (c) 326 IAC 2-3 (Emission Offset) and 326 IAC 2-1.1-5 (Nonattainment New Source Review)
This existing source is not a major stationary source, under Emission Offset (326 IAC 2-3), because the potential to emit all nonattainment regulated pollutants are less than 100 tons per year. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.
- This existing source is not a major stationary source, under 326 IAC 2-1.1-5 (Nonattainment New Source Review), because the potential to emit particulate matter with a diameter less than ten 2.5 micrometers (PM_{2.5}), is less than 100 tons per year. Therefore, pursuant to 326 IAC 2-1.1-5, the Nonattainment New Source Review requirements do not apply.
- (d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (e) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (f) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (g) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (h) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (i) 326 IAC 6.5 PM Limitations Except Lake County
This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

- (j) 326 IAC 6.8 PM Limitations for Lake County
This source is not subject to 326 IAC 6.8 because it is not located in Lake County.
- (k) 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)
This source is not subject to the requirements of 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties) because, although this source is located in Floyd County, it does not have potential VOC emissions equal to or greater than 100 tons per year and this source does not have coating facilities which emit or have the potential to emit a total equal to or greater than ten (10) tons per year of VOCs.
- (l) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.
- (m) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Wood veneer and lumber manufacturing

- (a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

- (1) Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) are not applicable to the following units, since the uncontrolled potential to emit particulate emissions for each of these emission units is less than five hundred fifty-one thousandths (0.551) pound per hour.

Emission Unit	Control Device
Debarker (1)	None
Split saw (3c)	None
Channel saw (3f)	None
Slicer 1 (3b)	None
Slicer 2 (3d)	None
Slicer 3 (3e)	None
Veneer Mill Clipper (3h)	None
CBT clipper 1 (3k)	None
CBT clipper 2 (3l)	None
CBT end clipper (3m)	None
CBT end clipper (3n)	None
Conveyors	None

- (2) Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) are not applicable to the following units, since the potential to emit particulate emissions before and after integral woodworking controls for each of these emission units is less than five hundred fifty-one thousandths (0.551) pound per hour.

Emission Unit	Control Device
Veneer Mill Hog (3i)	Cyclone #2
CBT veneer hog (3o)	Cyclone #3

- (3) Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) are not applicable to the following units, since the potential to emit particulate emissions after integral woodworking controls for each of these emission units is less than five hundred fifty-one thousandths (0.551) pound per hour.

Emission Unit	Control Device
Bandmill Head Rig (2a)	Cyclone #1
Sawmill Hog (2d)	Cyclone #1
Radial Arm crating saw (3j)	Bag Collector #1
Green shed resaw (6a)	Cyclone #4
Green shed radial arm saw (6b)	Cyclone #4
Green shed straight line rip saw (6c)	Cyclone #4
Green shed planer (6d)	Cyclone #4
Dry shed radial arm saw (6e)	Bag Collector #2
Dry shed straight line rip saw (6f)	Bag Collector #2
Sawmill Fluting saw (6g)	Cyclone #1

In order to ensure that the woodworking operations listed in the table above are each exempt from the requirements of 326 IAC 6-3-2, the particulate controls associated with these woodworking operations shall be in operation and control emissions from the associated woodworking operations at all times the units are in operation.

- (4) Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to the edger (2b), double end trim saw (2c), and the oil room bandsaw (6h), since these operations have uncontrolled potential particulate emissions of greater than five hundred fifty-one thousandths (0.551) pound per hour. Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), particulate emissions from the edger (2b), double end trim saw (2c), and the oil room bandsaw (6h) shall not exceed the pound per hour emission rate shown in the table below:

Emission Unit	Maximum Throughput (tons/hour)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hr)	Uncontrolled PTE of PM*** (lbs/hr)	Is a Control Device Needed to Comply with 326 IAC 6-3-2?
Edger (2b)	2.29	7.14	0.801	no
Double end trim saw (2c)	2.29	7.14	0.801	no
The oil room bandsaw (6h)	2.29	7.14	0.801	no

***The PTE of PM is after integral woodworking controls.

These limitations were calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

The uncontrolled potential particulate matter emissions these operations is less than the 326 IAC 6-3-2 allowable emission rates. Therefore, these operations are each able to comply with the 326 IAC 6-3 allowable emission rate without the use of particulate controls.

Kilns

- (a) 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)
None of the four (4) kilns, identified as 4a1, 4a2, 4b1, and 4b2, respectively, is subject to 326 IAC 8-1-6, because the potential VOC emissions from each of these units is less than 25 tons per year.

Veneer Dryer

- (a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), the veneer dryer is not subject to the requirements of 326 IAC 6-3, since it has potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.
- (b) 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)
The veneer dryer is not subject to 326 IAC 8-1-6, because the potential VOC emissions from this unit are less than 25 tons per year.

Wood-fired Boiler (Unit 5)

- (a) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
Pursuant to 6-2-1(c), the wood-fired boiler (Unit 5) is subject to the requirements of 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), because it is a source of indirect heating, it was existing and in operation prior to September 21, 1983, and it is not located in Lake, Porter, Marion, Boone, Hamilton, Hendricks, Johnson, Morgan, Shelby, and Hancock Counties.

Pursuant to 326 IAC 6-2-3(d) Particulate emissions from all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 lb/MMBtu heat input.

Based on the AP-42, Chapter 1.6, wood combustion particulate emission factor of 0.56 lb/MMBtu heat input, the wood-fired boiler (Unit 5) is able to comply with the particulate emission limitation under 326 IAC 6-2 without the use of particulate controls.
- (b) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(1), the wood-fired boiler is exempt from the requirements of 326 IAC 6-3, because it is a source of indirect heating.
- (c) 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)
Pursuant to 326 IAC 7-1.1-1, the wood-fired boiler is not subject to the requirements of 326 IAC 7-1.1, since it has unlimited sulfur dioxide (SO₂) emissions less than twenty-five (25) tons per year and ten (10) pounds per hour, respectively.
- (d) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The wood-fired boiler is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions are less than twenty-five (25) tons per year.

Ash conveyance and disposal system

- (a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), the ash conveyance and disposal system is not subject to the requirements of 326 IAC 6-3, since it has potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

Natural Gas-Fired Heaters

- (a) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2-1(c) the particulate emissions from each of the three (3) natural gas-fired space heaters, identified as Units 6p, 6q, and 6r, are subject to the particulate matter limitations of 326 IAC 6-2-3, because they were each constructed prior to September 21, 1983. The source has indicated that these units were installed prior to 1983. Pursuant to 326 IAC 6-2-3(e), particulate emissions from the natural gas-fired space heaters (6p, 6q, and 6r) shall in no case exceed 0.6 lb/MMBtu heat input, since each heater has 250 MMBtu/hr heat input or less and began operation after June 8, 1972.

Welding and Cutting

- (a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
(1) Pursuant to 326 IAC 6-3-1(b)(9), each of the welding stations is exempt from the requirements of 326 IAC 6-3, because the potential to consume welding wire from each station is less than six hundred twenty-five (625) pounds per day.
(2) Pursuant to 326 IAC 6-3-1(b)(10), each of the cutting stations is exempt from the requirements of 326 IAC 6-3, because each station has the potential to cut less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less.

Degreaser

- (a) 326 IAC 8-3 (Organic Solvent Degreasing Operations)
Pursuant to 326 IAC 8-3-1(c)(2), the remote solvent reservoir degreaser is not subject to the requirements of 8-3 (Organic Solvent Degreasing Operations) because it is a cold cleaner degreaser with a remote solvent reservoir that is located in Floyd County.

Diesel Storage Tank

- (a) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The diesel storage tank is not subject to the requirements of 326 IAC 8-1-6, since it has unlimited VOC potential emissions of less than twenty-five (25) tons per year.
- (b) 326 IAC 8-4-3 (Petroleum Sources; Petroleum Liquid Storage Facilities)
Pursuant to 326 IAC 8-4-1(a) and 326 IAC 8-4-3(a), the diesel storage tank is not subject to the requirements of 326 IAC 8-4-3, since, although this source is located in Floyd County, the diesel storage tank has a storage capacity less than thirty-nine thousand (39,000) gallons.
- (c) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)
Pursuant to 326 IAC 8-9-1(a), the diesel storage tank is subject to the requirements of 326 IAC 8-9, since it is located in Floyd County and it is a stationary vessel used to store volatile organic liquid (VOL) as defined in 326 IAC 8-9-3. Pursuant to 326 IAC 8-9-1(b), since the diesel storage tank has a capacity of less than 39,000 gallons, it is subject to the reporting and record keeping provisions of section 6(a) and 6(b) of this rule and is exempt from all other provisions of this rule.
- (6)(a) The owner or operator of each vessel subject to this rule shall keep all records required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel.
- (6)(b) The owner or operator of each vessel to which 326 IAC 8-9-1 applies shall maintain a record and submit to the department a report containing the following information for each vessel:
- (1) The vessel identification number.

(2) The vessel dimensions.

(3) The vessel capacity.

Gasoline Storage Tank

(a) 326 IAC 8-4-6 (Gasoline Dispensing Facilities)

Pursuant to 8-4-1(e) and 8-4-6(c)(1)(a), the gasoline tank is not subject to 326 IAC 8-4-6 (Gasoline Dispensing Facilities), since, although this source is located in Floyd County, the gasoline tank dispenses an average monthly volume of less than ten thousand (10,000) gallons of gasoline per month.

(b) 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1(a), the gasoline storage tank is subject to the requirements of 326 IAC 8-9, since it is located in Floyd County and it is a stationary vessel used to store volatile organic liquid (VOL) as defined in 326 IAC 8-9-3. Pursuant to 326 IAC 8-9-1(b), since the gasoline storage tank has a capacity of less than 39,000 gallons, it is subject to the reporting and record keeping provisions of section 6(a) and 6(b) of this rule and is exempt from all other provisions of this rule.

(6)(a) The owner or operator of each vessel subject to this rule shall keep all records required by this section for three (3) years unless specified otherwise. Records required by subsection (b) shall be maintained for the life of the vessel.

(6)(b) The owner or operator of each vessel to which 326 IAC 8-9-1 applies shall maintain a record and submit to the department a report containing the following information for each vessel:

(1) The vessel identification number.

(2) The vessel dimensions.

(3) The vessel capacity.

(4) A description of the emission control equipment for each vessel described in 326 IAC 8-9-4(a) and 326 IAC 8-9-4(b), or a schedule for installation of emission control equipment on vessels described in 326 IAC 8-9-4(a) or 326 IAC 8-9-4(b) with a certification that the emission control equipment meets the applicable standards.

Compliance Determination, Monitoring and Testing Requirements
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(a) The compliance determination and monitoring requirements applicable to this source are as follows:

Emission Unit/Control	Operating Parameters	Frequency	Range	Excursions and Exceedances
Wood-fired boiler (Unit 5)/none	Visible emission notations of the stack exhaust	Once per day	Normal or Abnormal	Response Steps

These monitoring conditions are necessary because the wood-fired boiler (Unit 5) must operate properly to ensure compliance with 326 IAC 6-2 (Particulate Emissions Limitations for Sources of Indirect Heating).

(b) There are no testing requirements included in the permit for this source.

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 March 19, 2014.

The operation of this source shall be subject to the conditions of the attached proposed MSOP No. M043-34319-00046. The staff recommends to the Commissioner that this MSOP be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Jenny Liljegren at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-0870 or toll free at 1-800-451-6027 extension 3-0870.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**Appendix A: Emissions Calculations
Emission Summary**

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Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

Unlimited Potential to Emit (PTE) (tons/year) Before Integral Woodworking Controls*										
	PM*	PM10*	direct PM2.5**	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Worst HAP (hydrogen chloride)
Woodworking*	49.40	28.22	28.22	-	-	-	-	-	-	-
Dryers/Kilns	-	-	-	-	-	2.40	0.26	-	0.34	-
Veneer Dryers	-	-	-	-	-	5.47	0.59	-	0.77	-
Wood Boiler	35.39	32.68	28.25	1.58	13.90	1.07	37.92	13,426	2.12	1.20
Ash Handling	2.0E-03	7.2E-04	7.2E-04	-	-	-	-	-	-	-
Natural Gas Heaters	3.8E-03	0.02	0.02	1.2E-03	0.20	0.01	0.17	238	0.00	-
Welding	1.53	1.53	1.53	-	-	-	-	-	0.03	-
Degreasing	-	-	-	-	-	0.12	-	-	0.00	-
Fuel Dispensing	-	-	-	-	-	0.01	-	-	0.05	-
Paved Roads	1.63	0.33	0.08	-	-	-	-	-	-	-
Unpaved Roads	3.35	0.85	0.09	-	-	-	-	-	-	-
Conveyors	0.36	0.13	0.13	-	-	-	-	-	-	-
Totals	91.66	63.75	58.32	1.58	14.10	9.08	38.94	13,665	3.30	1.20

Unlimited Potential to Emit (PTE) (tons/year) After Integral Woodworking Controls*										
	PM*	PM10*	direct PM2.5**	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Worst HAP (hydrogen chloride)
Woodworking*	18.01	10.29	10.29	-	-	-	-	-	-	-
Dryers/Kilns	-	-	-	-	-	2.40	0.26	-	0.34	-
Veneer Dryers	-	-	-	-	-	5.47	0.59	-	0.77	-
Wood Boiler	35.39	32.68	28.25	1.58	13.90	1.07	37.92	13,426	2.12	1.20
Ash Handling	2.0E-03	7.2E-04	7.2E-04	-	-	-	-	-	-	-
Natural Gas Heaters	3.8E-03	0.02	0.02	1.2E-03	0.20	0.01	0.17	238	0.00	-
Welding	1.53	1.53	1.53	-	-	-	-	-	0.03	-
Degreasing	-	-	-	-	-	0.12	-	-	0.00	-
Fuel Dispensing	-	-	-	-	-	0.01	-	-	0.05	-
Paved Roads	1.63	0.33	0.08	-	-	-	-	-	-	-
Unpaved Roads	3.35	0.85	0.09	-	-	-	-	-	-	-
Conveyors	0.36	0.13	0.13	-	-	-	-	-	-	-
Totals	60.28	45.82	40.38	1.58	14.10	9.08	38.94	13,665	3.30	1.20

*In October 1993 a Final Order Granting Summary Judgment was signed by Administrative Law Judge ("ALJ") Garretson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls. Based on this ruling, potential emissions for particulate matter from the woodworking operations were calculated after consideration of the controls for determining operating permit level purposes and determining the applicability of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the woodworking operations were calculated before consideration of the controls.

**Appendix A: Emissions Calculations
Sawmill Operations**

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Company Name: StemWood Manufacturing, L.L.C
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegen

Unlimited Potential to Emit (PTE)					Uncontrolled Emission Factor (lb/ton)		Uncontrolled Potential Emissions (lbs/hr)		Uncontrolled Potential Emissions (tons/yr)				Controlled Potential Emissions (lbs/hr)		Controlled Potential Emissions (tons/yr)	
Process	Maximum Throughput (BDFT/hr)**	Maximum Throughput (cubic feet/hr)	Density of Wood (lbs/cubic feet)	Maximum Throughput (lbs/hr)**	PM	PM10/PM2.5*	PM	PM10/PM2.5*	PM	PM10/PM2.5*	Control Device	Control Efficiency	PM	PM10/PM2.5*	PM	PM10/PM2.5*
Debarker (1)	1,000	83.33	54.9	4,575	0.02	0.011	0.05	0.03	0.20	0.11	none	0%	0.046	0.025	0.200	0.110
Bandmill Head Rig (2a)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	Cyclone #1	85%	0.120	0.069	0.526	0.301
Edger (2b)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	none	0%	0.801	0.458	3.507	2.004
Double End Trim Saw (2c)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	none	0%	0.801	0.458	3.507	2.004
Sawmill Hog (2d)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	Cyclone #1	85%	0.120	0.069	0.526	0.301
split saw (3c)	250	20.83	54.9	1,144	0.35	0.200	0.20	0.11	0.88	0.50	none	0%	0.200	0.114	0.877	0.501
Channel saw (3f)	250	20.83	54.9	1,144	0.35	0.200	0.20	0.11	0.88	0.50	none	0%	0.200	0.114	0.877	0.501
Veneer Mill Hog (3i)	265	22.08	54.9	1,212	0.35	0.200	0.21	0.12	0.93	0.53	Cyclone #2	85%	0.032	0.018	0.139	0.080
Radial Arm crating saw (3j)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	Bag Collector #1	85%	0.120	0.069	0.526	0.301
CBT veneer hog (3o)	265	22.08	54.9	1,212	0.35	0.200	0.21	0.12	0.93	0.53	Cyclone #3	85%	0.032	0.018	0.139	0.080
Green shed resaw (6a)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	Cyclone #4	85%	0.120	0.069	0.526	0.301
Green shed radial arm saw (6b)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	Cyclone #4	85%	0.120	0.069	0.526	0.301
Green shed straight line rip saw (6c)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	Cyclone #4	85%	0.120	0.069	0.526	0.301
Green shed planer (6d)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	Cyclone #4	85%	0.120	0.069	0.526	0.301
Dry shed radial arm saw (6e)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	Bag Collector #2	85%	0.120	0.069	0.526	0.301
Dry shed straight line rip saw (6f)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	Bag Collector #2	85%	0.120	0.069	0.526	0.301
Sawmill Fluting saw (6g)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	Cyclone #1	85%	0.120	0.069	0.526	0.301
Oil room bandsaw (6h)	1,000	83.33	54.9	4,575	0.35	0.200	0.80	0.46	3.51	2.00	none	0%	0.801	0.458	3.507	2.004
Slicer 1 (3b)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slicer 2 (3d)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Slicer 3 (3e)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Veneer Mill Clipper (3h)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
CBT clipper 1 (3k)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
CBT clipper 2 (3l)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
CBT end clipper (3m)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
CBT end clipper (3n)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Note: slicers and clippers cut the veneer with a knife, not a saw, and therefore do not create sawdust:					Totals		11.28	6.44	49.40	28.22			4.11	2.35	18.01	10.29

METHODOLOGY

*PM2.5 emissions assumed equal to PM10 emissions

**Maximum Throughput determined by bottlenecks in woodworking and veneer processes; see Technical Support Document (TSD) for description of bottlenecks

Emission Factors are from FIRE Version 5.0 Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants

(EPA-454/R-95-012) August 1995 for Sawmill Operations (SCC 3-07-008-01 and SCC 3-07-008-02)

1 board foot (BDFT) = 1/12 cubic foot

Throughput (cubic feet/hr) = Throughput (BDFT/hr) / (12 BDFT / cubic foot)

Density of Wood: Assume worst case wood – white oak with a specific gravity of 0.88 (Wood Handbook, Wood as an Engineering Material, USDA Forest Service) x density of water (62.39 lbs/cu ft)

Maximum Throughput (lbs/hr) = Maximum Throughput (cubic feet/hr) x Density of Wood (lbs/cubic foot)

Uncontrolled Potential Emissions (lbs/hr) = [Maximum Throughput (lbs/hr)] * [ton/2,000 lbs] * [Uncontrolled Emission Factor (lbs/ton)]

Uncontrolled Potential Emissions (tons/yr) = [Uncontrolled Potential Emissions (lbs/hr)] * [8,760 hrs/yr] * [ton/2,000 lbs]

Controlled Potential Emissions (lbs/hr) = [Uncontrolled Potential Emissions (lbs/hr)] * [1 - Control Efficiency]

Controlled Potential Emissions (tons/yr) = [Controlled Potential Emissions (lbs/hr)] * [8,760 hrs/yr] * [ton/2,000 lbs]

Limited Potential Emissions (lbs/hr) = [Uncontrolled Potential Emissions (lbs/hr)] * [1 - Equivalent Control Efficiency Limit]

Limited Potential Emissions (tons/yr) = [Limited Potential Emissions (lbs/hr)] * [8,760 hrs/yr] * [ton/2,000 lbs]

326 IAC 6-3-2 Compliance Summary

Emission Unit	Maximum Throughput (tons/hour)	326 IAC 6-3-2 Allowable Particulate Emission Rate (lbs/hr) for each unit of that type	PTE of PM*** (lbs/hr)	Is a Control Device Needed to Comply with 326 IAC 6-3-2?
edger (2b)	2.29	7.14	0.801	no
double end trim saw (2c)	2.29	7.14	0.801	no
the oil room bandsaw (6h)	2.29	7.14	0.801	no

***The PTE of PM is after integral woodworking controls.

Methodology

This table includes emission units that have uncontrolled PTE greater than 0.551 lbs/hr

Allowable emissions under 326 IAC 6-3-2 are calculated using the following equation where the process weight rate is up to sixty thousand (60,000) pounds per hour:

$$E = 4.10 P^{0.67} \text{ where}$$

E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

**Appendix A: Emissions Calculations
Drying Kilns**

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Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

Process	Maximum Throughput per Kiln* (BDFT/month)	Maximum Throughput per Kiln (ft3/month)	Maximum Throughput per Kiln (ft3/yr)	Thickness of Veneer (m)	Thickness of Veneer (ft)	Thickness of Veneer (in)	Maximum Total Throughput (SF/yr)	Maximum Throughput (MSF/yr)	Thickness of 3/8" Veneer (in)	Maximum Throughput (MSF 3/8"/yr)
Drying Kilns 4a1	30,000	2,500	30,000	0.02540	0.0833	1.0	360,000	360	0.375	960
Drying Kilns 4a2	30,000	2,500	30,000	0.02540	0.0833	1.0	360,000	360	0.375	960
Drying Kilns 4b1	45,000	3,750	45,000	0.02540	0.0833	1.0	540,000	540	0.375	1,440
Drying Kilns 4b2	45,000	3,750	45,000	0.02540	0.0833	1.0	540,000	540	0.375	1,440
Total										4,800

Criteria Pollutants

Pollutant	PM	PM10	SO ₂	NOx	VOC	CO
Emission Factor (lb/MSF 3/8") (heated zone)**	NA	NA	NA	NA	0.28	0.0088
Emission Factor (lb/MSF 3/8") (cooling zone)**	NA	NA	NA	NA	0.72	0.099
Potential To Emit (tons/year)	NA	NA	NA	NA	2.40	0.26

Hazardous Air Pollutants (HAPs)

Pollutant	Acetaldehyde	Formaldehyde	Methanol	MIBK	Phenol
Emission Factor (lb/MSF 3/8") (heated zone)**	0.0043	0.0011	0.041	0.0022	0.003
Emission Factor (lb/MSF 3/8") (cooling zone)**	0.032	0.0065	0.021	0.029	0
Potential To Emit (tons/year)	0.09	0.018	0.15	0.07	0.007

Potential To Emit Total HAPs (tons/year) **0.34**

Methodology

*Maximum Throughput determined by bottlenecks in woodworking and veneer processes; see Technical Support Document (TSD) for description of bottlenecks

1 board foot (BDFT) = 1/12 cubic foot

MSF = 1000 square feet of 0.026" thick veneer

MSF 3/8" = 1000 square feet of 0.375" thick veneer

Maximum Total Throughput (ft3/hr) = [Maximum Throughput per Kiln (ft3/hr)] * [Number of Kilns]

Thickness of Veneer (ft) = [Thickness of Veneer (m)] * [ft / 0.3048 m]

Thickness of Veneer (in) = [Thickness of Veneer (ft)] * [12 in/ft]

Maximum Total Throughput (SF/hr) = [Maximum Total Throughput (ft3/hr)] / [Thickness of Veneer (ft)]

Maximum Throughput (MSF/yr) = [Maximum Throughput (SF/hr)] * [8760 hours/year] / [1000 SF/MSF]

Maximum Throughput (MSF 3/8"/yr) = [Maximum Throughput (MSF/yr)] * [0.026 in / 0.375 in]

**Emission factors are from AP-42 Chapter 10.5 (Plywood Manufacturing), Table 10.5-2 (dated 01/02), for indirect heated, heated zones, hardwood (SCC # 3-07-007-56)

and indirect heated, cooling section, hardwood (SCC # 3-07-007-57) with units of pounds of pollutant per thousand square feet of 3/8-inch thick veneer (lb/MSF 3/8)

NA = Not Available. There are no emission factors for PM, PM10/PM2.5, or SO2 for indirect-fired hardwood drying processes. The NOx emission factor is listed in AP 42 as ND (no data available).

Maximum Throughput (MSF/year) = [Number of Kilns] * [Maximum Total Throughput ft2/hour] * [MSF/1000 ft2] * [8760 hours/year]

PTE (tons/year) = [Maximum Throughput (MSF 3/8"/year)] * [Emission Factor (lb/MSF)] * [ton/2000 lbs]

MIBK = Methyl isobutyl ketone

**Appendix A: Emissions Calculations
Veneer Dryers**

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Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

Process	Maximum Throughput per Dryer (ft3/hr)	Number of Dryers	Maximum Total Throughput (ft3/hr)	Thickness of Veneer (m)	Thickness of Veneer (ft)	Thickness of Veneer (in)	Maximum Total Throughput (SF/hr)	Maximum Throughput (MSF/yr)	Thickness of 3/8" Veneer (in)	Maximum Throughput (MSF 3/8"/yr)
One (1) Veneer Dryer	39.0	1.0	39.0	0.00065	0.0021	0.026	18,288.0	160,203	0.375	10,932

Criteria Pollutants

Pollutant	PM	PM10	SO ₂	NO _x	VOC	CO
Emission Factor (lb/MSF 3/8") (heated zone)**	NA	NA	NA	NA	0.28	0.0088
Emission Factor (lb/MSF 3/8") (cooling zone)**	NA	NA	NA	NA	0.72	0.099
Potential To Emit (tons/year)	NA	NA	NA	NA	5.47	0.59

Hazardous Air Pollutants (HAPs)

Pollutant	Acetaldehyde	Formaldehyde	Methanol	MIBK	Phenol
Emission Factor (lb/MSF 3/8") (heated zone)**	0.0043	0.0011	0.041	0.0022	0.003
Emission Factor (lb/MSF 3/8") (cooling zone)**	0.032	0.0065	0.021	0.029	0
Potential To Emit (tons/year)	0.20	0.042	0.34	0.17	0.016

Potential To Emit Total HAPs (tons/year) **0.77**

Methodology

MSF = 1000 square feet of 0.026" thick veneer

MSF 3/8" = 1000 square feet of 0.375" thick veneer

Maximum Total Throughput (ft3/hr) = [Maximum Throughput per Dryer (ft3/hr)] * [Number of Dryers]

Thickness of Veneer (ft) = [Thickness of Veneer (m)] * [ft / 0.3048 m]

Thickness of Veneer (in) = [Thickness of Veneer (ft)] * [12 in/ft]

Maximum Total Throughput (SF/hr) = [Maximum Total Throughput (ft3/hr)] / [Thickness of Veneer (ft)]

Maximum Throughput (MSF/yr) = [Maximum Throughput (SF/hr)] * [8760 hours/year] / [1000 SF/MSF]

Maximum Throughput (MSF 3/8"/yr) = [Maximum Throughput (MSF/yr)] * [0.026 in / 0.375 in]

**Emission factors are from AP-42 Chapter 10.5 (Plywood Manufacturing), Table 10.5-2 (dated 01/02), for indirect heated, heated zones, hardwood (SCC # 3-07-007-56)

and indirect heated, cooling section, hardwood (SCC # 3-07-007-57) with units of pounds of pollutant per thousand square feet of 3/8-inch thick veneer (lb/MSF 3/8)

NA = Not Available. There are no emission factors for PM, PM10/PM2.5, or SO2 for indirect-fired hardwood drying processes. The NOx emission factor is listed in AP 42 as ND (no data available).

Maximum Throughput (MSF/year) = [Number of Dryers] * [Maximum Total Throughput ft2/hour] * [MSF/1000 ft2] * [8760 hours/year]

PTE (tons/year) = [Maximum Throughput (MSF 3/8"/year)] * [Emission Factor (lb/MSF)] * [ton/2000 lbs]

MIBK = Methyl isobutyl ketone

**Appendix A: Emissions Calculations
External Combustion Boiler
Wood Waste Combustion (uncontrolled)
Bark/Bark and Wet Wood**

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Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

Capacity (MMBtu/hr) 14.43

	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO**
Emission Factor in lb/MMBtu	0.56	0.517	0.447	0.025	0.22	0.017	0.6
Potential Emissions in tons/yr	35.39	32.68	28.25	1.58	13.90	1.07	37.92

The maximum steam output achieved in the 2001 stack test was 12,000 lbs/hr (approximately 14.43 MMBTU/hr)

Wet wood is considered to be greater than or equal to 20% moisture content. Dry wood is considered to be less than 20% moisture content.

The wood burned in the boiler is 5% wood bark and 95% other clean wood residue. The non-bark is composed of 10% dry wood and 90% wet wood, the wood bark is assumed to be wet wood. Therefore, the clean wood material for the wood-fired boilers is assumed to be 10% dry wood and 90% wet wood.

Thus the wet wood emission factors are used for these calculations.

*The PM10 and PM2.5 emission factors include the condensible PM emission factor of 0.017 lb/MMBtu, measured by EPA Method 202 (or equivalent) and the appropriate filterable PM emission factor, measured by EPA Method 5 (or equivalent). The PM emission factor is filterable PM measured by EPA Method 5 (or equivalent).

**The CO emission factor is for stokers and dutch ovens/fuel cells. Change the emission factor to 0.17 lb/MMBtu if the calculations are for a fluidized bed combustor.

Methodology

Emission Factors are from AP-42 Chapter 1.6 (revised 3/02), SCCs #1-0X-009-YY where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional; Y = 01 for bark-fired boilers, 02 for bark and wet wood-fired boilers, 03 for wet wood-fired boilers, and 08 for dry wood-fired boilers

Emissions (tons/yr) = Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760hrs/yr x 1ton/2000lbs

**Appendix A: Emissions Calculations
External Combustion Boiler
Wood Waste Combustion (uncontrolled)
All Wood Waste Fuel Types
Hazardous Air Pollutants (HAPs)**

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Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

Capacity (MMBtu/hr) 14.43

Emission Factor in lb/MMBtu	Selected Hazardous Air Pollutants					HAPS Total
	Acrolein	Benzene	Formaldehyde	Hydrogen Chloride	Styrene	
	4.0E-03	4.2E-03	4.4E-03	1.9E-02	1.9E-03	
Potential Emissions in tons/yr	0.25	0.27	0.28	1.20	0.12	2.12

Methodology

Emission Factors are from AP-42 Chapter 1.6 (revised 3/02), SCCs #1-0X-009-YY where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional; Y = 01 for bark fired boilers, 02 for bark and wet wood-fired boilers, 03 for wet wood-fired boilers, and 08 for dry wood-fired boilers

Emissions (tons/yr) = Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760hrs/yr x 1ton/2000lbs

These factors include the five HAPs with the highest AP-42 emission factors.

Appendix A: Emissions Calculations
External Combustion Boiler
Wood Waste Combustion (uncontrolled)
All Wood Waste Fuel Types
Greenhouse Gases (GHGs)

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Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

Capacity (MMBtu/hr)

14.43

Greenhouse Gases

	CO2	CH4	N2O
Emission Factor in kg/mmBtu from 40 CFR 98	93.8	0.032	
Emission Factor in lb/mmBtu from AP-42			0.013
Potential Emission in tons/yr	13,070	4.5	0.8
Summed Potential Emissions in tons/yr	13,075		
CO2e Total in tons/yr	13,426		

Methodology

CO2 and CH4 Emission Factors from Tables C-1 and 2 of 40 CFR Part 98 Subpart C. N2O emission factor from AP-43 Chapter 1.6 (revised 3/02).

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Potential Emission (tons/yr) = Heat Input Capacity mmBtu/hr x Emission Factor (kg/mmBtu) x 2.20462 lb/kg x 8760 hrs/yr /2,000 lb/ton

Potential Emission (tons/yr) = Heat Input Capacity mmBtu/hr x Emission Factor (lb/mmBtu) x 8760 hrs/yr /2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Appendix A: Emissions Calculations
Particulate Emissions
Ash Conveyance and Disposal System

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Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

Ash Capacity*

Heat Input Capacity of Boiler (MMBtu/hr)	Heat Value of Wood (Btu/lb)	Potential Wood Combustion Rate (lbs/hr)	Ash in Wood (%)	Potential Ash Capacity (tons/yr)
14.43	4850	2975.3	10%	1303.16

* Ash conveyance system capacity is based on the amount of ash generated by the associated wood-fired boiler. The wood burned in the boiler is 5% wood bark and 95% other clean wood residue. The non-bark is composed of 10% dry wood and 90% wet wood, the wood bark is assumed to be wet wood. Therefore, the clean wood material for the wood-fired boilers is assumed to be 10% dry wood and 90% wet wood. The heating value of wood was calculated by proportionately applying the Btu/lb: (10% * 8000) + (90% * 4500) = 4850 Btu/lb. AP-42 heating value of dry wood is 8000 Btu/lb and the AP-42 heating value of wet wood is 4500 Btu/lb.

Potential Wood Combustion Rate (lbs/hr) = [Heat Input Capacity of Boiler (MMBtu/hr)] * [1000000 Btu/MMBtu] / [Heat Value of Wood (Btu/lb)]
 Potential Ash Capacity (tons/yr) = [Potential Wood Combustion Rate (lbs/hr)] * [10% ash in wood] * [8760 hours/year] / [2000 lbs/ton]

Potential to Emit (PTE) of PM/PM10/PM2.5 from Ash Handling System

Process	PM Emission Factor (lb/ton)	PM10/PM2.5 Emission Factor** (lb/ton)	PTE of PM (tons/yr)	PTE of PM10/PM2.5 (tons/yr)
Boiler to hopper (enclosed)*	0.003	0.0011	1.95E-03	7.17E-04

Methodology

*Particulate emissions from boiler to hopper (enclosed) ash handling were estimated using emission factors for conveyor transfer points from AP-42, Table 11.19.2-2 Emission Factors for Crushed Stone Processing Operations.

The Dry Ash Bin is taken off site by a disposal company several times per month.

**PM2.5 emissions assumed equal to PM10 emissions, since there are no PM2.5 emission factors for Crushed Stone Processing Operations
 Potential to Emit (tons/yr) = [Potential Ash Capacity (tons/year)] * [Emission Factor (lbs/ton)] * [1 ton/2000 lbs]

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

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Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

Natural Gas Heaters

MMBtu/hr	Location	Installed	Model #	Manufacturer	Serial #
0.16	Sawmill #1	Prior to 1989	No name plate	Rezna	
0.20	Sawmill #2	Prior to 1989	XA-200	Rezna	VI933N37
0.10	Oil Room Heater	Prior to 1989	No name plate	Label torn off	

Total Capacity (MMBtu/hr)	HHV mmBtu mmscf	Potential Throughput (MMCF/yr)
0.46	1020	4.0

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100	5.5	84
					**see below		
Potential Emission in tons/yr	0.004	0.02	0.02	0.001	0.20	0.01	0.17

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

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

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

Emission Factor in lb/MMcf	HAPs - Organics					Total - Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
	2.10E-03	1.20E-03	7.50E-02	1.80E+00	3.40E-03	
Potential Emission in tons/yr	4.1E-06	2.4E-06	1.5E-04	3.6E-03	6.7E-06	3.7E-03

Emission Factor in lb/MMcf	HAPs - Metals					Total - Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
	5.00E-04	1.10E-03	1.40E-03	3.80E-04	2.10E-03	
Potential Emission in tons/yr	9.9E-07	2.2E-06	2.8E-06	7.5E-07	4.1E-06	1.1E-05
					Total HAPs	3.7E-03
					Worst HAP	3.6E-03

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.

Greenhouse Gas Calculations

Emission Factor in lb/MMcf	Greenhouse Gas		
	CO2	CH4	N2O
	120.000	2.3	2.2
Potential Emission in tons/yr	237	0.005	0.004
Summed Potential Emissions in tons/yr	237		
CO2e Total in tons/yr	238		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Appendix A: Emissions Calculations
Welding and Thermal Cutting

Page 10 of 15 TSD App A

Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	Max. electrode consumption per station (lbs/day)		EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING					PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Metal Inert Gas (MIG)(carbon steel)	3	3	72		0.0055	0.0005			0.050	0.005	0.000	0	0.005
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	Max. Metal Cutting Rate (in./hour)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
					PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	1	1.5	20	1200	0.1622	0.0005	0.0001	0.0003	0.292	0.001	0.000	0.001	0.002
Plasma**	1	1.5	20	1200	0.0039				0.007	0.000	0.000	0.000	0.000
EMISSION TOTALS													
Potential Emissions lbs/hr									0.35				0.01
Potential Emissions lbs/day									8.36				0.15
Potential Emissions tons/year									1.53				0.03

Methodology:

Welders are used rarely - repairs only.

*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/1,000 in. cut, 8 mm thick)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

**Appendix A: Emissions Calculations
Degreasing Operations**

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**Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren**

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non- Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	HAPs		
														% naphthalene	Pounds naphthalene per gallon of coating	Potential naphthalene tons per year
Kerosene	6.76	100%	0%	100%	0%	0%	0.004	1.000	6.76	6.76	0.03	0.65	0.12	0.50%	0.03	5.92E-04

METHODOLOGY

Degreaser is used rarely - repairs only. The liquid is recycled and only about 1 gallon per year is consumed.

Pounds of VOC per Gallon of Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon of Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

**Appendix A: Emissions Calculations
Fuel Storage Tanks and Fuel Transfer and Dispensing
Volatile Organic Compound (VOC)**

Page 12 of 15 TSD App A

**Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren**

Volatile Organic Compound (VOC) Emissions From Storage Tanks (Working and Breathing Losses) Using US EPA TANKS Version 4.09 program
VOC emissions from storage tanks were determined by using US EPA TANKS Version 4.09 program.

Product Stored	Maximum Liquid Volume (gallons)	Turnovers per year	Product Throughput (gallons/yr)	VOC Working Losses (lbs/yr)	VOC Breathing Losses (lbs/yr)	Total VOC Losses (lbs/yr)	VOC Working Losses (tons/yr)	VOC Breathing Losses (tons/yr)	Total VOC Losses (tons/yr)
Gasoline	290	2.6	754	9.54	352.92	362.46	0.00	0.18	0.18
Diesel	550	5.0	2,750	0.07	0.22	0.29	3.5E-05	1.1E-04	1.5E-04
Totals						362.8			0.18

Methodology

Product Throughput (gallons/yr) = [Maximum Liquid Volume (gallons)] * [Turnovers per year]

Gasoline Fuel Transfer and Dispensing Operation

To calculate evaporative emissions from the gasoline dispensing fuel transfer and dispensing operation emission factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids were used. The total potential emission of VOC is as follows:

Gasoline Throughput = 2.07 gallons/day*
Gasoline Throughput = 0.8 kgal/yr

Emission Source	Emission Factor (lb/kgal of throughput)**	PTE of VOC (tons/yr)
Filling storage tank (splash filling)	11.50	0.004
Tank breathing and emptying***	1.00	0.0004
Vehicle refueling (displaced losses - uncontrolled)	11.00	0.004
Spillage	0.70	0.0003
Total		0.009

Methodology

*754 gallons/year / 365 days/year = 2.07 gallons/day

**Emission Factors from AP-42 Chapter 5.2 Transportation And Marketing Of Petroleum Liquids (dated 6/08), Table 5.2-7

***Includes any vapor loss between tank and gas pump

PTE of VOC (tons/yr) = [Gasoline Throughput (kgal/yr)] * [Emission Factor (lb/kgal)] * [ton/2000 lb]

PTE of HAP (tons/yr) = [HAP Content of Gasoline (% by weight)] * [PTE of VOC (tons/yr)]

Hazardous Air Pollutant (HAP) Emissions

Product Stored	Total PTE of VOC (tons/yr)	PTE of Total HAPs (tons/yr)	PTE of Worst Single HAP (tons/yr)	Worst Single HAP
Gasoline	0.190	0.050	0.017	Xylenes
Diesel	1.5E-04	1.9E-06	7.3E-07	Xylenes
Totals		0.050	0.017	Xylenes

Hazardous Air Pollutant (HAP) Content (% by weight) For Various Petroleum Mixtures*

Volatile Organic HAP	CAS#	HAP Content (% by weight)*	
		Gasoline	Diesel (#2) Fuel Oil
1,3-Butadiene	106-99-0	3.70E-5%	
2,2,4-Trimethylpentane	540-84-1	2.40%	
Acenaphthene	83-32-9		
Acenaphthylene	208-96-8		
Anthracene	120-12-7		5.80E-5%
Benzene	71-43-2	1.90%	2.90E-4%
Benzo(a)anthracene	56-55-3		9.60E-7%
Benzo(a)pyrene	50-32-8		2.20E-6%
Benzo(g,h,i)perylene	191-24-2		1.20E-7%
Biphenyl	92-52-4		6.30E-4%
Chrysene	218-01-9		4.50E-7%
Ethylbenzene	100-41-4	1.70%	0.07%
Fluoranthene	206-44-0		5.90E-5%
Fluorene	86-73-7		8.60E-4%
Indeno(1,2,3-cd)pyrene	193-39-5		1.60E-7%
Methyl-tert-butylether	1634-04-4	0.33%	
Naphthalene	91-20-3	0.25%	0.26%
n-Hexane	110-54-3	2.40%	
Phenanthrene	85-01-8		8.80E-4%
Pyrene	129-00-0		4.60E-5%
Toluene	108-88-3	8.10%	0.18%
Total Xylenes	1330-20-7	9.00%	0.50%
Total Organic HAPs		2.61E-1%	1.29%
Worst Single HAP		9.00%	0.50%
		Xylenes	Xylenes

Methodology

*Source: Petroleum Liquids. Potter, T.L. and K.E. Simmons. 1998. Total Petroleum Hydrocarbon Criteria Working Group Series, Volume 2. Composition of Petroleum Mixtures. The Association for Environmental Health and Science. Available on the Internet at: <http://www.aehsfoundation.org/Publications.aspx>

PTE of Total HAPs (tons/yr) = [Total HAP Content (% by weight)] * [PTE of VOC (tons/yr)]

PTE of Worst Single HAP (tons/yr) = [Worst Single HAP Content (% by weight)] * [PTE of VOC (tons/yr)]

Abbreviations

VOC = Volatile Organic Compounds

PTE = Potential to Emit

HAP = Hazardous Air Pollutant

Appendix A: Emissions Calculations
Fugitive Dust Emissions - Paved Roads

Page 13 of 15 TSD App A

Company Name: StemWood Manufacturing, L.L.C
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

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)

Passenger vehicle=employees and visitors
18 wheeler for lumber=flat bed and curtain side
18 wheel log truck=empty weight leaving property
Log trucks enter on a gravel road
Lumer Lift truck operates internally on premises only
Vehicle 3 = UPS, Amerigas, Garbage removal,etc

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Passenger Vehicle (entering plant) (one-way trip)	65.0	1.0	65.0	1.6	102.4	655	0.124	8.1	2943.2
Passenger Vehicle (leaving plant) (one-way trip)	65.0	1.0	65.0	1.6	102.4	655	0.124	8.1	2943.2
18 wheeler for lumber(entering plant) (one-way trip)	1.0	1.0	1.0	21.0	21.0	600	0.114	0.1	41.5
18 wheeler for lumber (leaving plant) (one-way trip)	1.0	1.0	1.0	42.0	42.0	600	0.114	0.1	41.5
18 wheel log truck leaving plant (one way)	2.0	1.0	2.0	20.0	40.0	1265	0.240	0.5	174.9
Lumber Lift Truck (one way trip)	1.0	88.0	88.0	7.5	660.0	462	0.088	7.7	2810.5
Vehicle Type 3 (entering plant) (one-way trip)	3.0	1.0	3.0	2.5	7.5	655	0.124	0.4	135.8
Vehicle Type 3 (leaving plant) (one-way trip)	3.0	1.0	3.0	2.5	7.5	655	0.124	0.4	135.8
Totals			228.0		982.8			25.3	9226.3

Average Vehicle Weight Per Trip = 4.3 tons/trip
Average Miles Per Trip = 0.11 miles/trip

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

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/MT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	4.3	4.3	4.3	tons = average vehicle weight (based on vehicle weights provided by source)
sL =	9.7	9.7	9.7	g/m ³ 2 = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

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

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

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f =$	0.386	0.077	0.0189	lb/mile
Mitigated Emission Factor, $E_{ext} =$	0.353	0.071	0.0173	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Passenger Vehicle (entering plant) (one-way trip)	0.57	0.11	0.03	0.52	0.10	0.03
Passenger Vehicle (leaving plant) (one-way trip)	0.57	0.11	0.03	0.52	0.10	0.03
18 wheeler for lumber(entering plant) (one-way trip)	0.01	0.00	0.00	0.01	0.00	0.00
18 wheeler for lumber (leaving plant) (one-way trip)	0.01	0.00	0.00	0.01	0.00	0.00
18 wheel log truck leaving plant (one way)	0.03	0.01	0.00	0.03	0.01	0.00
Lumber Lift Truck (one way trip)	0.54	0.11	0.03	0.50	0.10	0.02
Vehicle Type 3 (entering plant) (one-way trip)	0.03	0.01	0.00	0.02	0.00	0.00
Vehicle Type 3 (leaving plant) (one-way trip)	0.03	0.01	0.00	0.02	0.00	0.00
Totals	1.78	0.36	0.09	1.63	0.33	0.08

Methodology

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

Abbreviations

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

Appendix A: Emissions Calculations
Fugitive Dust Emissions - Unpaved Roads

Page 14 of 15 TSD App A

Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

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)

Note: Log Loader operates internally on premises only
 Log truck leaves on paved road

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Log Loader (one-way trip)	1.0	160.0	115.0	13.0	1495.0	240	0.045	5.2	1908.0
18 wheel log truck entering loaded (one-way trip)	2.0	1.0	2.0	40.0	80.0	300	0.057	0.1	41.5
Veneer shipments entering (one way)	1.0	1.0	1.0	21.0	21.0	300	0.057	0.1	20.7
Veneer shipments exiting loaded (one way)	1.0	1.0	1.0	40.0	40.0	300	0.057	0.1	20.7
Totals			119.0		1636.0			5.5	1990.9

Average Vehicle Weight Per Trip = 13.7 tons/trip
 Average Miles Per Trip = 0.05 miles/trip

Unmitigated Emission Factor, Ef = $k \cdot [(s/12)^a] \cdot [(W/3)^b]$ (Equation 1a from AP-42 13.2.2)

where k =	PM	PM10	PM2.5	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.9	1.5	0.15	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	4.8	4.8	4.8	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	0.7	0.9	0.9	tons = average vehicle weight (based on vehicle weights provided by source)
b =	13.7	13.7	13.7	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
	0.45	0.45	0.45	

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = $E \cdot [(365 - P)/365]$ (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor, Eext = $E \cdot [(365 - P)/365]$
 where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

Unmitigated Emission Factor, Ef =	PM	PM10	PM2.5	lb/mile
Mitigated Emission Factor, Eext =	5.12	1.30	0.13	lb/mile
	3.37	0.86	0.09	

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Log Loader (one-way trip)	4.88	1.24	0.12	3.21	0.82	0.08
18 wheel log truck entering loaded (one-way trip)	0.11	0.03	0.00	0.07	0.02	0.00
Veneer shipments entering (one way)	0.05	0.01	0.00	0.03	0.01	0.00
Veneer shipments exiting loaded (one way)	0.05	0.01	0.00	0.03	0.01	0.00
Totals	5.10	1.30	0.13	3.35	0.85	0.09

Methodology

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

Abbreviations

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

**Appendix A: Emissions Calculations
Material Conveying**

Page 15 of 15 TSD App A

Company Name: StemWood Manufacturing, L.L.C.
Source Address: 2710 Grant Line Road, New Albany, IN 47150
Permit Number: M043-34319-00046
Reviewer: Jenny Liljegren

Emission Unit	Maximum Capacity* (ton/hr)	Number of Conveyors	type of activity from AP-42	Uncontrolled Emission Factor (lb/ton)			Unlimited/Uncontrolled PTE (lb/hr)			Unlimited/Uncontrolled PTE (ton/yr)		
				PM	PM10	PM2.5	PM	PM10	PM2.5	PM	PM10	PM2.5
Conveyors	2.29	12	conveyor transfer point (SCC 3-05-020-06)	0.003	0.0011	0.0011	0.082	0.030	0.030	0.36	0.13	0.13

Methodology

*Maximum capacity is based on woodworking bottleneck maximum capacity of 1,000 BDFT/hr (4,575 tons/hour) (see Woodworking calculations)

Particulate emissions from conveyors were estimated using emission factors for conveyor transfer points from AP-42, Table 11.19.2-2 Emission Factors for Crushed Stone Processing and Pulverized Mineral Processing (PM2.5 emissions assumed equal to PM10 emissions, since there is no PM2.5 emission factor for conveyor transfer points for crushed stone processing operations.)

Unlimited/Uncontrolled PTE (lb/hr) = Maximum Capacity (ton/hr) x Number of Conveyors x Uncontrolled Emission Factor (lb/ton)

Unlimited/Uncontrolled PTE (ton/yr) = Unlimited/Uncontrolled PTE (lb/hr) x (8760 hr/yr) x (1 ton/2000 lb)



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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TO: David Wunderlin
StemWood Manufacturing LLC
2710 Grant Line Road
New Albany, Indiana 47150

DATE: September 16, 2014

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

SUBJECT: Final Decision
MSOP
043-34319-00046

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

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

A copy of the final decision and supporting materials has also been sent via standard mail to:
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 6/13/2013



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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

September 16, 2014

TO: New Albany Floyd County Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**


Applicant Name: StemWood Manufacturing LLC
Permit Number: 043-34319-00046

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

IDEM Staff	CDENNY 9/15/2014 StemWood Manufacturing LLC 043-34319-00046 (final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handling Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee
											Remarks
1		David Wunderlin StemWood Manufacturing LLC 2710 Grant Line Road New Albany IN 47150 (Source CAATS)									
2		Floyd County Commissioners 2524 Corydon Pike, Ste 204 New Albany IN 47150 (Local Official)									
3		New Albany City Council and Mayors Office City County Building #316 New Albany IN 47150 (Local Official)									
4		New Albany Floyd Co Public Library 180 W Spring St New Albany IN 47150-3692 (Library)									
5		Floyd County Health Department 1917 Bono Rd New Albany IN 47150-4607 (Health Department)									
6		Ms. Sue Green 1985 Kempley Road Georgetown IN 47122 (Affected Party)									
7											
8											
9											
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Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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