



# 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](http://www.idem.IN.gov)

**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

TO: Interested Parties / Applicant  
DATE: August 21, 2013  
RE: Stella Jones Corporation / 125-33434-00034  
FROM: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

## Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

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

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

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

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

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

Enclosures  
FNPER-AM.dot 6/13/2013



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence  
Governor

Thomas W. Easterly  
Commissioner

Steve Basham  
Stella-Jones Corporation  
3818 S CR 50 E  
Winslow, Indiana 47598

August 21, 2013

Re: 125-33434-00034  
Third Administrative Amendment to  
M125-29288-00034

Dear Steve Basham:

Stella-Jones Corporation was issued a Minor Source Operating Permit (MSOP) Renewal No. M125-29288-00034 on November 4, 2010 for a stationary source that pressure treats railroad ties with creosote located at 3818 S CR 50 E, Winslow, Indiana 47598. On July 17, 2013, the Office of Air Quality (OAQ) received an application from the source requesting to construct and operate a new product recovery tank (PRT)

1. Pursuant to 326 IAC 2-6.1-6(d)(11), this change to the permit is considered an administrative amendment because the permit is amended to add an emissions unit, subject to 326 IAC 2-1.1-3 (Exemptions).

The following is the new emission unit:

One (1) Creosote Product Recovery Tank (PRT), identified as PRT, approved for construction in 2013, with a capacity of 286 bbl (barrels) and an annual throughput of 10,429 bbl (barrels).

The PTE of the emission unit is as follows:

Process/ Emission Unit	PTE of Proposed Modification (tons/year)									
	PM	PM10	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e	Total HAPs	Worst Single HAP
Creosote Product Recovery Tank (PRT)	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.06	0.05 Naphthalene
Total PTE of Proposed Modification	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.08</b>	<b>0.00</b>	<b>0.00</b>	<b>0.06</b>	<b>0.05</b> Naphthalene

The uncontrolled/unlimited potential to emit of the entire source after the addition of this emission unit will continue to be within the threshold levels specified in 326 IAC 2-5.1 (MSOP). The addition of the emission unit will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset), or 326 IAC 2-7 (Part 70). (See Appendix A for the calculations).

- (a) No new state rules are applicable to this source due to the addition of the emission unit.



**PTE of the Entire Source After Issuance of the MSOP Administrative Amendment**

The table below summarizes the potential to emit of the entire source, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of MSOP Administrative Amendment (tons/year)									
	PM	PM10*	PM2.5*	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
Woodworking	4.42	4.42	4.42	0.00	0.00	0.00	0.00	0	0.00	--
Pressure vessels	0.00	0.00	0.00	0.00	0.00	14.41	0.00	0	0.28	0.20 Naphthalene
Tanks 1-4 (Creosote)	0.00	0.00	0.00	0.00	0.00	1.68	0.00	0	0.31	0.12 Naphthalene
Unpaved Roads	2.18	0.55	0.02	0.00	0.00	0.00	0.00	0	0.00	--
Storage Yard	0.00	0.00	0.00	0.00	0.00	6.02	0.00	0	2.83	2.69 Naphthalene
Dehydrator	0.00	0.00	0.00	0.00	0.00	1.49	0.00	0	0.68	0.68 Naphthalene
Fuel Boiler (Worst Case Fuel)	1.80	1.28	0.57	24.99	5.26	0.09	1.31	5,883	0.6	0.04 HCl
Wood Waste Storage and Conveyance	17.52	6.31	6.31	0.00	0.00	0.00	0.00	0	0.00	--
Wood Boiler/Furnace	16.33	15.19	13.21	1.24	10.89	0.64	29.70	239	1.45	0.82-HCl
Wood Grinder	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0	0.00	--
<b>Creosote Tank (PRT)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.08</b>	<b>0.00</b>	<b>0</b>	<b>0.06</b>	<b>0.05 Naphthalene</b>
Total PTE of Entire Source	42.45	27.96	24.74	26.23	16.14	<del>24.34</del> <b>24.42</b>	31.02	6,122	<del>5.62</del> <b>5.68</b>	<del>3.69</del> <b>3.74</b> Naphthalene
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA
negl. = negligible *Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant". **The 100,000 CO <sub>2</sub> e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.										

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this MSOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted)

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of MSOP Administrative Amendment (tons/year)									
	PM	PM10*	PM2.5*	SO <sub>2</sub>	NOx	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
Woodworking	4.42	4.42	4.42	0.00	0.00	0.00	0.00	0	0.00	--
Pressure vessels	0.00	0.00	0.00	0.00	0.00	14.41	0.00	0	0.28	0.20 Naphthalene
Tanks 1-4 (Creosote)	0.00	0.00	0.00	0.00	0.00	1.68	0.00	0	0.31	0.12 Naphthalene
Unpaved Roads	2.18	0.55	0.02	0.00	0.00	0.00	0.00	0	0.00	--
Storage Yard	0.00	0.00	0.00	0.00	0.00	6.02	0.00	0	2.83	2.69 Naphthalene
Dehydrator	0.00	0.00	0.00	0.00	0.00	1.49	0.00	0	0.68	0.68 Naphthalene
Fuel Boiler (Worst Case Fuel)	1.80	1.28	0.57	24.99	5.26	0.09	1.31	5,883	0.6	0.04 HCl
Wood Waste Storage and Conveyance	17.52	6.31	6.31	0.00	0.00	0.00	0.00	0	0.00	--
Wood Boiler/Furnace	16.33	15.19	13.21	1.24	10.89	0.64	29.70	239	1.45	0.82 HCl
Wood Grinder	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0	0.00	--
Creosote Tank (PRT)	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0	0.06	0.05 Naphthalene
<b>Total PTE of Entire Source</b>	<b>42.45</b>	<b>27.96</b>	<b>24.74</b>	<b>26.23</b>	<b>16.14</b>	<b>24.42</b>	<b>31.02</b>	<b>6,122</b>	<b>5.68</b>	<b>3.74 Naphthalene</b>
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA
negl. = negligible *Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant". **The 100,000 CO <sub>2</sub> e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.										

Pursuant to the provisions of 326 IAC 2-6.1-6, the permit is hereby amended as follows with the deleted language as ~~strikeouts~~ and new language **bolded**.

A.2 Emission Units and Pollution Control Equipment Summary

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

...

- (I) **One (1) Creosote Product Recovery Tank (PRT), identified as PRT, approved for construction in 2013, with a capacity of 286 bbl (barrels) and an annual throughput of 10,429 bbl (barrels).**

...

### Additional Changes

IDEM, OAQ made additional revisions to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.

1. IDEM has clarified the following condition to indicate that the analog instrument must be capable of measuring the parameters values outside the normal range.

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

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. **The analog instrument shall be capable of measuring values outside of the normal range.**

...

2. IDEM, OAQ has clarified the Permittee's responsibility with regards to record keeping.

#### C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. **Support information includes the following, where applicable:**

(AA) **All calibration and maintenance records.**

(BB) **All original strip chart recordings for continuous monitoring instrumentation.**

(CC) **Copies of all reports required by the MSOP.**

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

(AA) **The date, place, as defined in this permit, and time of sampling or measurements.**

(BB) **The dates analyses were performed.**

(CC) **The company or entity that performed the analyses.**

(DD) **The analytical techniques or methods used.**

(EE) **The results of such analyses.**

(FF) **The operating conditions as existing at the time of sampling or measurement.**

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

...

All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Marcia Earl of my staff at 317-233-0863 or 1-800-451-6027, and ask for extension 3-0863.

Sincerely,



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

Attachments: Updated Permit and Appendix A

NB/me

cc: File - Pike County  
Pike County Health Department  
U.S. EPA, Region V  
Compliance and Enforcement Branch



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Michael R. Pence  
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Commissioner

## Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY

**Stella-Jones Corporation  
3818 S CR 50 E  
Winslow, Indiana 47598**

(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. M125-29288-00034	
Original signed/issued by: Alfred C. Dumaul, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: November 4, 2010  Expiration Date: November 4, 2020

First Notice-Only Change No. 125-30181-00034, issued on February 23, 2011  
Second Notice-Only Change No. 125-30485-00034, issued on May 24, 2011  
First Minor Permit Revision No. 125-31392-00034, issued March 27, 2012  
First Administrative Amendment No. 125-32396-00034, issued November 7, 2012  
Second Administrative Amendment No. 125-32809-00034, issued February 25, 2013

Third Administrative Amendment No. 125-33434-00034	
Issued by:  Nathan C. Bell, Section Chief Permits Branch Office of Air Quality	Issuance Date: August 21, 2013  Expiration Date: November 4, 2020

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Attachment A 40 CFR 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants  
for Industrial, Commercial, and Institutional Boilers Area Sources

## 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 source that pressure treats railroad ties with creosote.

Source Address:	3818 S CR 50 E, Winslow, Indiana 47598
General Source Phone Number:	812-789-5331
SIC Code:	2491
County Location:	Pike (Patoka Township)
Source Location Status:	Attainment for all 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

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

- (a) One (1) wood-fired boiler, approved for construction in 2012, with a maximum output rating of 200 horsepower per hour and a maximum heat input capacity of 9.9 MMBtu/hr, using a combination of briquette style wood chips bought off-site and wood wastes generated onsite;  
  
This boiler is an affected unit under the provisions 40 CFR 63, Subpart JJJJJJ.
- (b) Four (4) fixed roof tanks, identified as Tank 1 and Tank 2, constructed in 1996, Tank 3 and Tank 4, constructed in 2005, each with a maximum storage capacity of 29,610 gallons of creosote, and each with a maximum annual throughput of 1,250,000 gallons of creosote;
- (c) One (1) diesel fuel storage tank, approved for construction in 2013, with a maximum capacity of 5,000 gallons;
- (d) Two (2) woodworking operations:
  - (1) one (1) switch-tie operation consists of one (1) trim/rough cut saw constructed in 1983, with a capacity of 1,500 ties per day, controlled by a 5,600 acfm cyclone with an inlet grain loading of 0.07 grains/acfm, that exhaust to the atmosphere.
  - (2) one (1) cross-tie operation consists of one (1) double trim/rough cut saw constructed in 2008, with a capacity of 6,000 ties per day, controlled by a 5,250 acfm cyclone that exhausts to the atmosphere;
- (e) One (1) wood storage pile, approved for construction in 2012, covered by three walls and a roof, with a maximum storage capacity of 80,000 pounds of wood chips.

- (f) Two (2) pressure vessels, identified as Cyl-1 and Cyl-3, constructed in 1980, with a maximum capacity of 2,500 gallons of creosote per day, each with two (2) charges per day, per cylinder, with a maximum combined capacity of treating 13,618 cubic feet of wood per day;
- (g) One (1) wood chip conveyor system, approved for construction in 2012, with a maximum capacity of 96,000 pounds of wood chips and sawdust per day.
- (h) One (1) wood fired furnace, identified as WF1, constructed in 2010, with a maximum heat input of 1.4 MMBtu/hr used for building heat.
- (i) One (1) dehydrator, constructed in 2011, with a maximum capacity of 854,100 gallons per year, and exhausting to the atmosphere.
- (j) One (1) No. 2 fuel oil-fired boiler, using No. 6 fuel oil as back-up, identified as Fuel Oil Boiler, approved for construction in 2012, with a maximum heat input capacity of 8.4 MMBtu/hr, and exhausting through a stack to the outdoors.  
  
This boiler is an affected unit under the provisions 40 CFR 63, Subpart JJJJJJ.
- (k) One (1) electric powered wood grinder, approved for construction in 2012, with a maximum capacity of 4000 pounds per hour.
- (l) One (1) Creosote Product Recovery Tank (PRT), identified as PRT, approved for construction in 2013, with a capacity of 286 bbl (barrels) and an annual throughput of 10,429 bbl (barrels).

## 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, M125-29288-00034, is issued for a fixed term of ten (10) 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]

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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

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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

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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

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

### B.7 Duty to Provide Information

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- (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)]**

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- (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]**

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

The Permittee shall implement the PMPs.
- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality

100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

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

**B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to M125-29288-00034 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)]**

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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]**

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- (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]**

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- (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**

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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]**

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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]**

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- (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]**

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- (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]**

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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]**

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

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- (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.8 Performance Testing [326 IAC 3-6]**

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

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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.10 Compliance Monitoring [326 IAC 2-1.1-11]**

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

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. 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.12 Response to Excursions or Exceedances**

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

- (a) The 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.13 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (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.14 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.15 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. Support information includes the following, where applicable:
  - (AA) All calibration and maintenance records.
  - (BB) All original strip chart recordings for continuous monitoring instrumentation.
  - (CC) Copies of all reports required by the MSOP.Records of required monitoring information include the following, where applicable:
  - (AA) The date, place, as defined in this permit, and time of sampling or measurements.
  - (BB) The dates analyses were performed.
  - (CC) The company or entity that performed the analyses.
  - (DD) The analytical techniques or methods used.
  - (EE) The results of such analyses.
  - (FF) The operating conditions as existing at the time of sampling or measurement.

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

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

C.16 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) 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-fired boiler, approved for construction in 2012, with a maximum output rating of 200 horsepower per hour and a maximum heat input capacity of 9.9 MMBtu/hr, using a combination of briquette style wood chips bought off-site and wood wastes generated onsite;
- This boiler is an affected unit under the provisions 40 CFR 63, Subpart JJJJJJ.
- (h) One (1) wood fired furnace, identified as WF1, constructed in 2010, with a maximum heat input of 1.4MMBtu/hr used for building heat.

(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 (PM) Emissions [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-4(a) particulate emissions from the wood-fired boiler shall not exceed 0.6 lbs/MMBtu.

#### D.1.2 Wood-fired Boiler Operation

- (a) In order to render the provisions of 40 CFR 60, Subpart AAAA not applicable, the Permittee shall not combust municipal solid waste, as defined in 40 CFR 60.1465, in the one (1) wood-fired boiler. Municipal solid waste includes: household, commercial/retail, or institutional waste. Household waste includes material discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes materials discarded by schools, by hospitals (nonmedical), by nonmanufacturing activities at prisons and government facilities, and other similar establishments or facilities. The Permittee may combust the following in the one (1) wood-fired boiler; wood pallets; construction, renovation, and demolition wastes (which include railroad ties and telephone poles); clean wood (defined as untreated wood or untreated wood products including clean untreated lumber, whole or chipped tree stumps, and whole or chipped tree limbs); industrial process or manufacturing waste as allowed by the rule as defined in 40 CFR 60.1454.
- (b) In order to render the provisions of 40 CFR 60, Subpart EEEE not applicable, the Permittee shall not combust municipal solid waste, as defined in 60 CFR 60.2977, in the one (1) wood-fired boiler. Municipal solid waste includes refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources consisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials and non-combustible materials such as metal, glass and rock. Municipal solid waste does not include industrial process wastes or medical wastes that are segregated from such other wastes. An incineration unit shall not be considered to be combusting municipal solid waste for purposes of this subpart if it combusts a feed stream 30 percent or less of the weight of which is comprised, in aggregated, of municipal solid waste, as determined by 40 CFR 60.2887(b).

#### D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

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

**SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

<b>Emissions Unit Description:</b>	
(d)	Two (2) woodworking operations :
(1)	one (1) switch-tie operation consists of one (1) trim/rough cut saw constructed in 1983, with a capacity of 1,500 ties per day, controlled by a 5,600 acfm cyclone with an inlet grain loading of 0.07 grains/acfm, that exhaust to the atmosphere.
(2)	one (1) cross-tie operation consists of one (1) double trim/rough cut saw constructed in 2008, with a capacity of 6,000 ties per day, controlled by a 5,250 acfm cyclone that exhausts to the atmosphere;
(g)	One (1) wood chip conveyor system, approved for construction in 2012, with a maximum capacity of 96,000 pounds of wood chips and sawdust per day.
(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 (PM) Emissions [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) the particulate emissions from the woodworking operation and wood conveyor system shall not exceed the pound per hour emission rate listed below.

Units	Process Weight Rate (tons/hour)	326 IAC 6-3-2 Allowable Emission Rate (lbs/hour)
Wood chip conveyor system	2.00	6.52
Trim/rough cut saws	46.88	43.98

The pounds per hour allowable emission rate is calculated using the following equations:

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

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

and

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

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

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

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

## SECTION D.3

## EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (j) One (1) No. 2 fuel oil-fired boiler, using No. 6 fuel oil as back-up, identified as Fuel Oil Boiler, approved for construction in 2012, with a maximum heat input capacity of 8.4 MMBtu/hr, and exhausting through a stack to the outdoors.

This boiler is an affected unit under the provisions 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.3.1 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2]

Pursuant to 326 IAC 6-2-4, particulate matter emissions from the Fuel Oil Boiler shall be limited to 0.6 pounds per million British thermal units (lb/MMBtu) heat input.

#### D.3.2 Fuel Input Limitation [326 IAC 2-6.1-6(g)(5)(E)]

The input of No. 6 fuel oil to the Fuel Oil Boiler shall be less than 208.25 kilogallons (kgal) per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall limit sulfur dioxide (SO<sub>2</sub>) emissions from the Fuel Oil Boiler to less than 25 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-6.1-6(i) (Significant Permit Revisions) not applicable.

#### D.3.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-2] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1-2 (SO<sub>2</sub> Emissions Limitations), the SO<sub>2</sub> emissions from Fuel Oil Boiler shall not exceed one and six-tenths (1.6) pounds per MMBtu heat input when combusting residual oil and five-tenths (0.5) pounds per MMBtu heat input when combusting distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

Note: No. 2 fuel oil is distillate oil

Note: No. 6 fuel oil is residual oil

#### D.3.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for the Fuel Oil Boiler. 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.3.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance with Condition D.3.3 shall be determined using one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed one and six-tenths (1.6) pound per million Btu heat input when combusting residual oil and five-tenths (0.5) pound per million Btu heat input when combusting distillate oil by:
- (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the

procedures in 40 CFR 60, Appendix A, Method 19.

- (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
  - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

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

#### **D.3.6 Visible Emissions Notations**

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- (a) Visible emission notations of the Fuel Oil Boiler stack exhaust shall be performed once per day during normal daylight operations while combusting fuel oil. 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 obligations with regard to the response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

### **Record Keeping and Reporting Requirement [326 IAC 2-6.1-5(a)(2)]**

#### **D.3.7 Record Keeping Requirements**

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- (a) To document the compliance status with Condition D.3.2, the Permittee shall maintain records of the input of No. 6 fuel oil to the Fuel Oil Boiler each month and each compliance period.
- (b) To document the compliance status with Condition D.3.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO<sub>2</sub> emission limit established in Condition D.3.3.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

- (3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

If the fuel supplier certification is used to demonstrate compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
  - (5) The name of the fuel supplier; and
  - (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (c) To document the compliance status with Condition D.3.6, the Permittee shall maintain records of visible emission notations of the Fuel Oil Boiler stack exhaust while combusting fuel oil. 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).
  - (d) 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

## FACILITY OPERATION CONDITIONS

### Emissions Unit Description: Boilers

- (a) One (1) wood-fired boiler, approved for construction in 2012, with a maximum output rating of 200 horsepower per hour and a maximum heat input capacity of 9.9 MMBtu/hr, using a combination of briquette style wood chips bought off-site and wood wastes generated onsite;

This boiler is an affected unit under the provisions 40 CFR 63, Subpart JJJJJJ.

- (j) One (1) No. 2 fuel oil-fired boiler, using No. 6 fuel oil as back-up, identified as Fuel Oil Boiler, approved for construction in 2012, with a maximum heat input capacity of 8.4 MMBtu/hr, and exhausting through a stack to the outdoors.

This boiler is an affected unit under the provisions 40 CFR 63, Subpart JJJJJJ.

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

### National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements: Industrial, Commercial, and Institutional Boilers

#### E.1.1 General Provisions Relating to NESHAP [40 CFR Part 63, Subpart A] [326 IAC 20-1]

Pursuant to 40 CFR 63, 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, except as otherwise specified in 40 CFR 63, Subpart JJJJJJ.

#### E.1.2 NESHAP for Area Sources: Industrial, Commercial, and Institutional Boilers [40 CFR Part 63, Subpart JJJJJJ]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart JJJJJJ (included as Attachment A of this permit) for the Wood-Fired Boiler and the Fuel Oil Boiler:

- (1) 40 CFR 63.11193
- (2) 40 CFR 63.11194
- (3) 40 CFR 63.11196(a) and (c)
- (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 (d)
- (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), and (g)
- (11) 40 CFR 63.11235
- (12) 40 CFR 63.11236
- (13) 40 CFR 63.11237
- (14) Tables 2 and 8

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

MSOP Quarterly Report

Source Name: Stella-Jones Corporation  
Source Address: 3818 S CR 50 E, Winslow, IN 47598  
MSOP Permit No.: M125-29288-00034  
Facility: Fuel Oil Boiler  
Parameter: Input of No. 6 fuel oil  
Limit: The input of No. 6 fuel oil to the Fuel Oil Boiler shall be less than 208.25 kilogallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

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

**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).

<b>Company Name:</b>	Stella-Jones Corporation
<b>Address:</b>	3818 S CR 50 E
<b>City:</b>	Winslow, Indiana 47598
<b>Phone #:</b>	(812) 789-5331
<b>MSOP #:</b>	M125-29288-00034

I hereby certify that Stella-Jones Corporation is :

still in operation.

no longer in operation.

I hereby certify that Stella-Jones Corporation is :

in compliance with the requirements of MSOP M125-29288-00034.

not in compliance with the requirements of MSOP M125-29288-00034.

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

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

<b>Noncompliance:</b>

**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:

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**Attachment A, NESHAP**

**40 CFR 63, Subpart JJJJJ**

**National Emissions Standards for Hazardous Air Pollutants  
for Industrial, Commercial, and Institutional Boilers Area Sources**

**Stella-Jones Corporation  
3818 S CR 50 E  
Winslow, IN 47598**

**Permit No. M125-29288-00034**

## **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 is the collection of all existing industrial, commercial, and institutional boilers within a subcategory (coal, biomass, oil), 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 or reconstruction of the affected source after June 4, 2010 and you meet the applicability criteria at the time you commence construction.

(d) A boiler is a new affected source if you commenced fuel switching from natural gas to solid fossil fuel, biomass, or liquid fuel after June 4, 2010.

(e) 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.

#### **§ 63.11195 Are any boilers not subject to this subpart?**

The types of boilers listed in paragraphs (a) through (g) 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).

(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, provided that at least 50 percent of the heat input to the boiler is provided by the gas stream that is regulated under another subpart.

### **§ 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 standard no later than March 21, 2012.

(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.

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

#### **§ 63.11200 What are the subcategories of boilers?**

The subcategories of boilers are coal, biomass, and oil. Each subcategory is defined in §63.11237.

### **§ 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 the requirements in Table 2 to this subpart satisfies the energy assessment portion of this 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.

### **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 can demonstrate compliance with any 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 continuous parameter monitoring system), 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 continuous parameter monitoring system. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).
  - (1) For each continuous monitoring system required in this section (including CEMS, COMS, or continuous parameter monitoring system), you must develop, and submit to the delegated authority 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 monitoring plans that apply to CEMS and COMS prepared under appendix B to part 60 of this chapter and which meet the requirements of §63.11224.
  - (i) Installation of the continuous monitoring system 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.

### **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 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).

(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).

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

(e) For affected boilers that ceased burning solid waste consistent with §63.11196(d), you must demonstrate compliance within 60 days of the effective date of the waste-to-fuel switch. If you have not conducted your compliance demonstration for this subpart within the previous 12 months, you must complete all compliance demonstrations before you commence or recommence combustion of solid waste.

#### **§ 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 continuous monitoring system (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 liquid flowrate and 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 particulate matter and mercury emissions, you must establish one set of minimum scrubber liquid flowrate and pressure drop operating limits. If you conduct multiple performance stack tests, you must set the minimum liquid flowrate 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 voltage and secondary amperage (or total electric power input), as defined in §63.11237, as your operating limits during the three-run performance stack test. (These operating limits do not apply to electrostatic precipitators that are operated as dry controls without a wet scrubber.)

(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.

#### **§ 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.

(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 particulate matter concentrations and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates.

#### **§ 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 and submit, upon request, the energy assessment report.

(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.

### **Continuous Compliance Requirements**

#### **§ 63.11220 When must I conduct subsequent performance tests?**

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

(b) You can conduct performance stack tests less often for particulate matter or mercury if your performance stack tests for the pollutant for at least 3 consecutive years show that your emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. In this case, you do not have to conduct a performance stack test for that pollutant for the next 2 years. You must conduct a performance stack test during the third year and no more than 37 months after the previous performance stack test.

(c) If your boiler continues to meet the emission limit for particulate matter or mercury, you may choose to conduct performance stack tests for the pollutant every third year if your emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions, but each such performance stack test must be conducted no more than 37 months after the previous performance test.

(d) If you have an applicable CO emission limit, you must conduct triennial performance tests for CO according to §63.11212. Each triennial performance test must be conducted between no more than 37 months after the previous performance test.

(e) 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 monthly. 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.

#### **§ 63.11221 How do I monitor and collect data to demonstrate continuous compliance?**

(a) You must monitor and collect data according to this section.

(b) You must operate the monitoring system and collect data at all required intervals at all times the affected source is operating except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods (see section 63.8(c)(7) of this part), and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments. 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 effect 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 recorded 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 control activities in calculations used to report emissions or operating levels. 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 out-of-control periods, 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 and required zero and span adjustments, failure to collect required data is a deviation of the monitoring requirements.

#### **§ 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 biennial performance tune-up according to paragraphs (b) of this section and keep records as required in §63.11225(c) to demonstrate continuous compliance. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up.

(b) 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.

(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, but you must inspect each burner at least once every 36 months).

(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.

(4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.

(5) Measure the concentrations in the effluent stream of carbon monoxide 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).

(6) Maintain onsite and submit, if requested by the Administrator, biennial 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 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 biennial tune-up of the boiler.

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

(c) If you own or operate an existing or new coal-fired boiler with a heat input capacity of 10 million Btu per hour or greater, you must minimize the boiler's time spent during startup and shutdown following the manufacturer's recommended procedures and 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.

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

(a) If your boiler is subject to a carbon monoxide emission limit in Table 1 to this subpart, you must install, operate, and maintain a continuous oxygen monitor according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in §63.11196. The oxygen level shall be monitored at the outlet of the boiler.

(1) Each monitor must be installed, operated, and maintained according to the applicable procedures under Performance Specification 3 at 40 CFR part 60, appendix B, and 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 Specification 3 at 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

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

(5) You must calculate and record the 12-hour block average concentrations.

(6) For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, excluding data collected during periods when the monitoring system malfunctions or is out of control, during associated repairs, and during required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments). Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system malfunctions or is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Periods when data are unavailable because of required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments) do not constitute monitoring deviations.

(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 continuous monitoring system (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 (b)(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 (b)(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 continuous parameter monitoring system according to the procedures in paragraphs (d)(1) through (5) of this section.

(1) The continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities.

You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements.

(4) Determine the 12-hour block average of all recorded readings, except as provided in paragraph (d)(3) of this section.

(5) 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 continuous opacity monitoring system (COMS) according to the procedures in paragraphs (e)(1) through (7) 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). 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 determine and record all the 1-hour block averages collected for periods during which the COMS is not out of control.

(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 of 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.

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

(a) You must submit the notifications specified in paragraphs (a)(1) through (a)(5) of this section to the delegated authority.

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

(2) As specified in §63.9(b)(2), you must submit the Initial Notification no later than 120 calendar days after May 20, 2011 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 in accordance with §63.9(h) 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. In addition to the information required in §63.9(h)(2), 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 §63.11214 to conduct an initial tune-up of the boiler."

(ii) "This facility has had an energy assessment performed according to §63.11214(c)."

(iii) For an owner or operator that installs bag leak detection systems: "This facility has prepared a bag leak detection system monitoring plan in accordance with §63.11224 and will operate each bag leak detection system according to the plan."

(iv) 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."

(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 consistent with §63.7(e)(2)(iv), you must submit the test data in lieu of the initial performance test results with the Notification of Compliance Status required under paragraph (a)(4) of this section.

(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 tune-up according to §63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial compliance report as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.

(1) Company name and address.

(2) Statement by a responsible official, with the official's name, title, phone number, e-mail 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.

(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 (5) 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 as specified in paragraphs (c)(2)(i) and (ii) 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) Records documenting the fuel type(s) used monthly by each boiler, including, but not limited to, a description of the fuel, including whether the fuel has received a non-waste determination by you or EPA, and the total fuel usage amount with units of measure. If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to §241.3(b)(1), you must keep a record which documents how the secondary material meets each of the legitimacy criteria. If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to §241.3(b)(4), you must keep records as to how the operations that produced the fuel satisfies the definition of processing in §241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under §241.3(c), you must keep a record that documents how the fuel satisfies the requirements of the petition process.

(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, according to §63.10(b)(1). As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each recorded action. You must keep each record onsite for at least 2 years after the date of each recorded action according to §63.10(b)(1). You may keep the records off site for the remaining 3 years.

(e) As of January 1, 2012 and within 60 days after the date of completing each performance test, as defined in §63.2, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) ( *see [http://www.epa.gov/ttn/chief/ert/ert\\_tool.html/](http://www.epa.gov/ttn/chief/ert/ert_tool.html/)* ) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(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 intend to switch fuels, and this fuel switch may result in the applicability of a different subcategory or a switch out of subpart JJJJJJ due to a switch to 100 percent natural gas, you must provide 30 days prior notice of the date upon which you will switch fuels. 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 switch fuels, 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 standards.

(4) The date upon which you will commence the fuel switch.

**§ 63.11226 How can I assert an affirmative defense if I exceed an emission limit during a malfunction?**

In response to an action to enforce the standards set forth in paragraph §63.11201 you may assert an affirmative defense to a claim for civil penalties for exceedances of numerical emission limits that are caused by malfunction, as defined at §63.2. Appropriate penalties may be assessed, however, 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) To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The excess emissions:

(i) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring 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) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(3) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and

(4) If the excess emissions 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 excess emissions 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 excess emissions were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the facility 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 excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(b) *Notification.* The owner or operator of the facility experiencing an exceedance of its emission limit(s) during a malfunction shall notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in §63.11201 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

## **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 a delegated authority such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in 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.

#### **§ 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:

*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 basis* means the heat input for the 12 months preceding the compliance demonstration.

*Bag leak detection system* means a group of instruments that is 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.

*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 at least 15 percent biomass on an annual heat input basis.

*Boiler* means an enclosed device using controlled flame combustion in which water is heated to recover 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. Waste heat boilers are excluded from this definition.

*Boiler system* means the boiler and associated components, such as, the feedwater system, the combustion air system, the boiler fuel system (including burners), blowdown system, combustion control system, steam system, and condensate return system.

*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.

*Deviation* (1) Deviation 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 requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(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; or

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

*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 in fluidized bed boilers are included in this definition. A dry scrubber is a dry control system.

*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 a dry control system, except when it is operated with a wet scrubber.

*Energy assessment* means the following only as this term is used in Table 3 to this subpart:

(1) Energy assessment for facilities with affected boilers using less than 0.3 trillion Btu (TBtu) per year heat input will be one day in length maximum. The boiler system and energy use system accounting for at least 50 percent of the affected boiler(s) energy output will be evaluated to identify energy savings opportunities, within the limit of performing a one day energy assessment.

(2) Energy assessment for facilities with affected boilers and process heaters using 0.3 to 1 TBtu/year will be three days in length maximum. The boiler system(s) and any energy use system(s) accounting for at least 33 percent of the affected boiler(s) energy output will be evaluated to identify energy savings opportunities, within the limit of performing a 3-day energy assessment.

(3) Energy assessment for facilities with affected boilers and process heaters using greater than 1.0 TBtu/year, the boiler system(s) and any energy use system(s) accounting for at least 20 percent of the affected boiler(s) energy output will be evaluated to identify energy savings opportunities.

*Energy use system* includes, but not limited to, process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air-conditioning (HVAC) systems; hot heater systems; building envelop; and lighting.

*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 the requirements of 40 CFR part 60 and 40 CFR part 61, requirements within any applicable state implementation plan, and any permit requirements established under §52.21 or under §§51.18 and 51.24.

*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, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, 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, or returned condensate.

*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 or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210 degrees Fahrenheit (99 degrees Celsius).

*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 medical centers, research centers, and institutions of higher education to provide electricity, steam, and/or hot water.

*Liquid fuel* means, but not limited to, petroleum, distillate oil, residual oil, any form of liquid fuel derived from petroleum, used oil, liquid biofuels, and biodiesel.

*Minimum activated carbon injection rate* means load fraction (percent) multiplied by the lowest 1-hour 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 limits.

*Minimum oxygen level* means the lowest 1-hour average oxygen level measured according to Table 6 of this subpart during the most recent performance stack test demonstrating compliance with the applicable CO emission limit.

*Minimum PM scrubber pressure drop* means the lowest 1-hour average PM 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 sorbent flow rate* means the boiler load (percent) multiplied by the lowest 2-hour average sorbent (or 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 limits.

*Minimum voltage or amperage* means the lowest 1-hour average total electric power value (secondary voltage × secondary current = secondary electric power) 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 including intermediate gas streams generated during processing of natural gas at production sites or at gas processing plants; or

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

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

(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 during periods of gas curtailment, gas supply emergencies, or for periodic testing not to exceed 48 hours during any calendar year are not included in this definition.

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

*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 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 natural gas curtailment or supply interruption* means a period of time during which the supply of natural gas to an affected facility is 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 does not constitute a period of natural gas curtailment or supply interruption.

*Qualified energy assessor* means:

(1) someone who has demonstrated capabilities to evaluate a set of the typical energy savings opportunities available in opportunity areas 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.
- (vi) 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.

*Responsible official* means responsible official as defined in §70.2.

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

*Waste heat boiler* means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators.

*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.

**Table 1 to Subpart JJJJJJ of Part 63—Emission Limits**

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

<b>If your boiler is in this subcategory</b>	<b>For the following pollutants. . .</b>	<b>You must achieve less than or equal to the following emission limits, except during periods of startup and shutdown. . .</b>
1. New coal-fired boiler with heat input capacity of 30 million Btu per hour or greater	a. Particulate Matter	0.03 lb per MMBtu of heat input.

	b. Mercury	0.0000048 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen.
2. New coal-fired boiler with heat input capacity of between 10 and 30 million Btu per hour	a. Particulate Matter	0.42 lb per MMBtu of heat input.
	b. Mercury	0.0000048 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen.
3. New biomass-fired boiler with heat input capacity of 30 million Btu per hour or greater	a. Particulate Matter	0.03 lb per MMBtu of heat input.
4. New biomass fired boiler with heat input capacity of between 10 and 30 million Btu per hour	a. Particulate Matter	0.07 lb per MMBtu of heat input.
5. New oil-fired boiler with heat input capacity of 10 million Btu per hour or greater	a. Particulate Matter	0.03 lb per MMBtu of heat input.
6. Existing coal (units with heat input capacity of 10 million Btu per hour or greater)	a. Mercury	0.0000048 lb per MMBtu of heat input.
	b. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen.

**Table 2 to Subpart JJJJJJ 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:

<b>If your boiler is in this subcategory. . .</b>	<b>You must meet the following. . .</b>
1. Existing or new coal, new biomass, and new oil (units with heat input capacity of 10 million Btu per hour or greater)	Minimize the boiler's startup and shutdown periods following 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 or new coal (units with heat input capacity of less than 10 million Btu per hour)	Conduct a tune-up of the boiler biennially as specified in §63.11223.
3. Existing or new biomass or oil	Conduct a tune-up of the boiler biennially as specified in §63.11223.
4. Existing coal, biomass, or oil (units with heat input capacity of 10 million Btu per hour and greater)	<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. The energy assessment must include:</p> <ul style="list-style-type: none"> <li>(1) A visual inspection of the boiler system,</li> <li>(2) An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints,</li> <li>(3) Inventory of major systems consuming energy from affected boiler(s),</li> <li>(4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,</li> <li>(5) A list of major energy conservation measures,</li> <li>(6) A list of the energy savings potential of the energy conservation measures identified,</li> <li>(7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.</li> </ul>

**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:

<b>If you demonstrate compliance with applicable emission limits using . . .</b>	<b>You must meet these operating limits. . .</b>
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 secondary power input of the electrostatic precipitator at or above the lowest 1-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.
3. Wet PM scrubber control	Maintain the pressure drop at or above the lowest 1-hour average pressure drop across the wet scrubber and the liquid flow-rate at or above the lowest 1-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with the PM emission limitation.
4. Dry sorbent or carbon injection control	Maintain the sorbent or carbon injection rate at or above the lowest 2-hour average sorbent flow rate measured during the most recent performance test demonstrating compliance with the mercury emissions limitation. When your boiler operates at lower loads, multiply your sorbent or carbon injection rate by the load fraction (e.g., actual heat input divided by the heat input during 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 rates calculated according to §63.11211(b) is less than the applicable emission limits 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. Continuous Oxygen Monitor	Maintain the oxygen level at or above the lowest 1-hour average oxygen level measured during the most recent CO performance stack test.

**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:

<b>To conduct a performance test for the following pollutant. . .</b>	<b>You must. . .</b>	<b>Using. . .</b>
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), <sup>a</sup> or ANSI/ASME PTC 19.10–1981. <sup>a</sup>
	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), <sup>a</sup> or ANSI/ASME PTC 19.10–1981. <sup>a</sup>
	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. <sup>a</sup> 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.

<b>To conduct a performance test for the following pollutant. . .</b>	<b>You must. . .</b>	<b>Using. . .</b>
	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), <sup>a</sup> or ANSI/ASME PTC 19.10-1981. <sup>a</sup>
	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) <sup>a</sup> and a minimum 1 hour sampling time per run.

<sup>a</sup>Incorporated by reference, see §63.14.

**Table 5 to Subpart JJJJJ 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:

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

<sup>a</sup>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. Particulate matter or mercury	a. Wet scrubber operating parameters	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to §63.11211(b)	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter or mercury performance stack test	(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 (option only for units that operate wet scrubbers)	i. Establish a site-specific minimum secondary electric power according to §63.11211(b)	(1) Data from the secondary electric power monitors during the particulate matter or mercury performance stack test	(a) You must collect secondary electric power input data every 15 minutes during the entire period of the performance stack tests; (b) Determine the secondary electric power input 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
2. Mercury	a. Activated carbon injection	i. Establish a site-specific minimum activated carbon injection rate operating limit according to §63.11211(b)	(1) Data from the activated carbon rate monitors and mercury performance stack tests	(a) You must collect activated carbon injection rate data every 15 minutes during the entire period of the performance stack tests; (b) Determine the average 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. (c) When your unit operates at lower loads, multiply your 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. Carbon monoxide	a. Oxygen	i. Establish a unit-specific limit for minimum oxygen level according to §63.11211(b)	(1) Data from the oxygen monitor 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 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.

**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:

<b>If you must meet the following operating limits. . .</b>	<b>You must demonstrate continuous compliance by. . .</b>
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).
2. Fabric filter bag leak detection operation	Installing and operating a bag leak detection system according to §63.11224 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 12-hour block averages; and
	c. Maintaining the 12-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to §63.1140.
4. Dry scrubber sorbent or carbon injection rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§63.11224 and 63.11220; and
	b. Reducing the data to 12-hour block averages; and
	c. Maintaining the 12-hour average sorbent or carbon injection rate at or above the minimum sorbent or carbon injection rate as defined in §63.11237.
5. Electrostatic precipitator secondary amperage and voltage, or total power input	a. Collecting the secondary amperage and voltage, or total power input monitoring system data for the electrostatic precipitator according to §§63.11224 and 63.11220; and
	b. Reducing the data to 12-hour block averages; and
	c. Maintaining the 12-hour average secondary amperage and voltage, or total power input at or above the operating limits established during the performance test according to §63.11214.
6. Fuel pollutant content	a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to §63.11214 as applicable; and
	b. Keeping monthly records of fuel use according to §63.11222.
7. Oxygen content	a. Continuously monitor the oxygen content in the combustion exhaust according to §63.11224.
	b. Maintain the 12-hour average oxygen content at or above the operating limit established during the most recent carbon monoxide

	performance test.
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**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.

General provisions cite	Subject	Does it apply?
§63.9	Notification Requirements	Yes.
§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.
§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) and (f)		Yes.
§63.11	Control Device Requirements	No.

<b>General provisions cite</b>	<b>Subject</b>	<b>Does it apply?</b>
§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.

**Appendix A: Emissions Calculations  
Emission Summary**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

Uncontrolled/Unlimited Potential to Emit (PTE) (tons/year)												
Facility	Pollutant											
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Worse Case HAP		
Existing Units	Woodworking	28.51	28.51	28.51	0.00	0.00	0.00	0.00	0	0.00	0.00	---
	Pressure Vessels	0.00	0.00	0.00	0.00	0.00	14.41	0.00	0	0.28	0.20	Naphthalene
	Tanks 1-4 (Creosote)	0.00	0.00	0.00	0.00	0.00	1.68	0.00	0	0.31	0.12	Naphthalene
	Unpaved Roads	2.18	0.55	0.02	0.00	0.00	0.00	0.00	0	0.00	N/A	N/A
	Storage Yard	0.00	0.00	0.00	0.00	0.00	6.02	0.00	0	2.83	2.69	Naphthalene
	Dehydrator	0.00	0.00	0.00	0.00	0.00	1.49	0.00	0	0.68	0.68	Naphthalene
	Fuel Boiler - No 2 Fuel Oil**	0.53	0.63	0.56	0.04	5.26	0.09	1.31	5,883	1.8E-03	5.5E-04	Selenium
	Fuel Boiler - No 6 Fuel Oil (back-up)**	4.24	3.01	1.35	58.87	11.53	0.07	1.23	6,177	0.13	0.09	HCl
	Wood Waste Storage and Conveyance	17.52	6.31	6.31	0.00	0.00	0.00	0.00	0	0.00	0.00	---
	Wood Boiler/Furnace	16.33	15.19	13.21	1.24	10.89	0.64	29.70	239	1.45	0.82	HCl
Wood Grinder	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0	0	0	---	
New Unit	Creosote (PRT)	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0	0.06	0.05	Naphthalene
<b>Total After Revision</b>		<b>68.99</b>	<b>53.79</b>	<b>49.62</b>	<b>60.10</b>	<b>22.42</b>	<b>24.42</b>	<b>31.01</b>	<b>6416</b>	<b>5.76</b>	<b>3.74</b>	<b>Naphthalene</b>

Unlimited PTE after Integral Woodworking Controls (tons/year)***												
Facility	Pollutant											
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Worse Case HAP		
Existing Units	Woodworking	4.42	4.42	4.42	0.00	0.00	0.00	0.00	0	0.00	0.00	---
	Pressure Vessels	0.00	0.00	0.00	0.00	0.00	14.41	0.00	0	0.28	0.20	Naphthalene
	Tanks 1-4 (Creosote)	0.00	0.00	0.00	0.00	0.00	1.68	0.00	0	0.31	0.12	Naphthalene
	Unpaved Roads	2.18	0.55	0.02	0.00	0.00	0.00	0.00	0	0.00	N/A	N/A
	Storage Yard	0.00	0.00	0.00	0.00	0.00	6.02	0.00	0	2.83	2.69	Naphthalene
	Dehydrator	0.00	0.00	0.00	0.00	0.00	1.49	0.00	0	0.68	0.68	Naphthalene
	Fuel Boiler - No 2 Fuel Oil**	0.53	0.63	0.56	0.04	5.26	0.09	1.31	5,883	1.8E-03	5.5E-04	Selenium
	Fuel Boiler - No 6 Fuel Oil (back-up)**	4.24	3.01	1.35	58.87	11.53	0.07	1.23	6,177	0.13	0.09	HCl
	Wood Waste Storage and Conveyance	17.52	6.31	6.31	0.00	0.00	0.00	0.00	0	0.00	0.00	---
	Wood Boiler/Furnace	16.33	15.19	13.21	1.24	10.89	0.64	29.70	239	1.45	0.82	HCl
Wood Grinder	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0	0	0	---	
New Unit	Creosote (PRT)	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0	0.06	0.05	Naphthalene
<b>Total After Revision</b>		<b>44.89</b>	<b>29.69</b>	<b>25.52</b>	<b>60.10</b>	<b>22.42</b>	<b>24.42</b>	<b>31.01</b>	<b>6416</b>	<b>5.76</b>	<b>3.74</b>	<b>Naphthalene</b>

Controlled & Limited PTE (tons/year)****												
Facility	Pollutant											
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Worse Case HAP		
Existing Units	Woodworking	4.42	4.42	4.42	0.00	0.00	0.00	0.00	0	0.00	0.00	---
	Pressure Vessels	0.00	0.00	0.00	0.00	0.00	14.41	0.00	0	0.28	0.20	Naphthalene
	Tanks 1-4 (Creosote)	0.00	0.00	0.00	0.00	0.00	1.68	0.00	0	0.31	0.12	Naphthalene
	Unpaved Roads	2.18	0.55	0.02	0.00	0.00	0.00	0.00	0	0.00	N/A	N/A
	Storage Yard	0.00	0.00	0.00	0.00	0.00	6.02	0.00	0	2.83	2.69	Naphthalene
	Dehydrator	0.00	0.00	0.00	0.00	0.00	1.49	0.00	0	0.68	0.68	Naphthalene
	Fuel Boiler - No 2 Fuel Oil**	0.53	0.63	0.56	0.04	5.26	0.09	1.31	5,883	1.8E-03	5.5E-04	Selenium
	Fuel Boiler - No 6 Fuel Oil (back-up)**	1.80	1.28	0.57	24.99	4.89	0.03	0.52	2,620	0.06	0.04	HCl
	Wood Waste Storage and Conveyance	17.52	6.31	6.31	0.00	0.00	0.00	0.00	0	0.00	0.00	---
	Wood Boiler/Furnace	16.33	15.19	13.21	1.24	10.89	0.64	29.70	239	1.45	0.82	HCl
Wood Grinder	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0	0	0	---	
New Unit	Creosote (PRT)	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0	0.06	0.05	Naphthalene
<b>Total After Revision</b>		<b>42.45</b>	<b>27.96</b>	<b>24.74</b>	<b>26.23</b>	<b>16.14</b>	<b>24.42</b>	<b>31.01</b>	<b>6122</b>	<b>5.68</b>	<b>3.74</b>	<b>Naphthalene</b>

\*The source purchases briquette style wood chip from off-site, stores the wood chips in a pile with a roof and three walls (silo for old unit) which feeds to a conveyor. There are no emission factors for this type of process and PM/PM10/PM2.5 emissions will be negligible. Therefore, the potential to emit PM/PM10/PM2.5 is based on 326 IAC 6-3-2

\*\*Worst case is used for PTE totals, since the boiler can only run on one fuel at a time.

\*\*\*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 were calculated after consideration of the baghouse controls for determining operating permit level purposes. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD) and 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) applicability, potential particulate matter emissions from the woodworking operations were calculated before consideration of the cyclone controls.

\*\*\*\*Limited for Fuel Oil Boiler when using No. 6 fuel oil.

**Appendix A: Emission Calculations  
PM/PM10/PM2.5 Emissions Calculations  
Woodworking**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

Control Device	Inlet Flow (acfm)	Inlet Grain Loading (grains/acfm)	Control Efficiency %	Controlled PTE of PM/PM10/PM2.5 (lbs/hr)	Controlled PTE of PM/PM10/PM2.5 (tpy)	Uncontrolled PTE of PM/PM10/PM2.5 (lbs/hr)	Uncontrolled PTE of PM/PM10/PM2.5 (tpy)
Cyclone	5600	0.07	85.00%	0.50	2.21	3.36	14.72
Cyclone	5250	0.07	85.00%	0.50	2.21	3.15	13.80
				TOTAL (tons/yr)	4.42		28.51

**Methodology**

Controlled PTE of PM/PM10/PM2.5 (lbs/hr) = [Inlet flow (ft<sup>3</sup>/min)] \* [60 (min/hr)] \* [Inlet grain loading (grains/ft<sup>3</sup>)] \* [1/7000 grains/lb] \* [1-control efficiency (%)]  
 Controlled PTE of PM/PM10/PM2.5 (tpy) = [Controlled PTE PM/PM10/PM2.5 (lbs/hr)] \* [8760 (hrs/yr)] \* [1/2000 lbs/ton]

Uncontrolled PTE of PM/PM10/PM2.5 (lbs/hr) = [Inlet flow (ft<sup>3</sup>/min)] \* [60 (min/hr)] \* [Inlet grain loading (grains/ft<sup>3</sup>)] \* [1/7000 grains/lb]  
 Uncontrolled PTE of PM/PM10/PM2.5 (tpy) = [Uncontrolled PTE PM/PM10/PM2.5 (lbs/hr)] \* [8760 (hrs/yr)] \* [1/2000 lbs/ton]

**TSD Appendix A: Emission Calculations  
Sawdust Handling Emissions**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

**Potential to Emit (PTE) PM, PM10, and PM2.5**

Emission Unit ID	Process Description	Type of Emission	Maximum Throughput (tons/year)*	Emission Factor (lbs/ton)**	Pollutant	PTE (lbs/yr)	PTE (lbs/hr)	PTE (tons/yr)
EU-SD1	Transfer from woodworking cyclones to conveyor system	Non-fugitive	17520	1.0	PM	17520.00	2.00	8.76
			17520	0.36	PM10	6307.20	0.72	3.15
			17520	0.36	PM2.5	6307.20	0.72	3.15
EU-SD2	Sawdust is loaded from the enclosed auger	Non-fugitive	17520	1.0	PM	17520.00	2.00	8.76
			17520	0.36	PM10	6307.20	0.72	3.15
			17520	0.36	PM2.5	6307.20	0.72	3.15

\* Maximum Throughput based upon 100 tons per week, 52 weeks per year.

\*\* Sawdust handling emission factor is available only for PM10. Therefore, PM2.5 emissions were assumed equal to PM10.

Totals	
Pollutant	PTE (tons/yr)
PM	<b>17.52</b>
PM10	<b>6.31</b>
PM2.5	<b>6.31</b>

**METHODOLOGY**

Emission Factors are from AIRS Facility Subsystem Source Classification Codes and Emission Factor Listing for Criteria Air Pollutants EPA March 1990 for Sawmill Operations (sawdust pile handling) (SCC 3-07-008-03)

Potential to Emit (lbs/yr) = [Maximum Throughput (tons/year)] \* [Emission Factor (lbs/ton)]

Potential to Emit (tons/yr) = [Potential to Emit (lbs/yr)] \* [ton/2000 lbs]

**Appendix A: HAPs Emissions Calculations  
Fugitive Emissions from Wood Grinder**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

Maximum Capacity (tons/hour) 2

	PM	PM10**	PM2.5**
Uncontrolled Emission Factor (lb/ton)*	0.024	0.024	0.024
Uncontrolled Potential to Emit (tons/year)	0.21	0.21	0.21

**Methodology**

\*Emission Factor from AP-42, 4th Ed. (9/85) Chapter 10.3, Table 10.3-1 (Uncontrolled Fugitive Particulate Emission Factors for Plywood Veneer and Layout Operations)

\*\*No emission factors were provided for PM10 and PM2.5. The emission factor for PM was used for PM10 and PM2.5.

Uncontrolled emissions (tons/year) = Maximum Capacity (tons/hour) x Emission Factor (lb/ton) x 8760 (hours/year) x 1 ton/2000 pounds

**Appendix A: Emissions Calculations  
External Combustion Boiler  
Wood Waste Combustion (uncontrolled)  
Wet Wood**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

Unit	Max. Input (MMBtu/hr)
Boiler	9.9
Furnace	1.4
<b>Total</b>	<b>11.3</b>

Capacity (MMBtu/hr) 11.3

	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO**
Emission Factor in lb/MMBtu	0.33	0.307	0.267	0.025	0.22	0.013	0.6
Potential Emissions in tons/yr	16.33	15.19	13.21	1.24	10.89	0.64	29.70

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 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**

To convert from tons/hr capacity to MMBtu/hr capacity:

$$\text{Heat Input Capacity (MMBtu/hr)} = \text{Capacity (tons/hr)} \times \text{Higher Heating Value of wood fuel (Btu/lb)} \times (1 \text{ MMBtu}/10^6 \text{ Btu}) \times 2000 \text{ lbs}/1 \text{ ton}$$

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

$$\text{Emissions (tons/yr)} = \text{Capacity (MMBtu/hr)} \times \text{Emission Factor (lb/MMBtu)} \times 8760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs}$$

Capacity (MMBtu/hr) 9.9

	Selected Hazardous Air Pollutants				
	Acrolein	Benzene	Formaldehyde	Hydrogen Chloride	Styrene
Emission Factor in lb/MMBtu	4.0E-03	4.2E-03	4.4E-03	1.9E-02	1.9E-03
Potential Emissions in tons/yr	1.7E-01	1.8E-01	1.9E-01	8.2E-01	8.2E-02
	<b>Total HAP</b>				<b>1.45</b>

**Methodology**

To convert from tons/hr capacity to MMBtu/hr capacity:

$$\text{Heat Input Capacity (MMBtu/hr)} = \text{Capacity (tons/hr)} \times \text{Higher Heating Value of wood fuel (Btu/lb)} \times (1 \text{ MMBtu}/10^6 \text{ Btu}) \times 2000 \text{ lbs}/1 \text{ ton}$$

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

$$\text{Emissions (tons/yr)} = \text{Capacity (MMBtu/hr)} \times \text{Emission Factor (lb/MMBtu)} \times 8760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs}$$

These factors include the five HAPs with the highest AP-42 emission factors.

Capacity (MMBtu/hr) 9.9

	Greenhouse Gases		
	CO2	CH4	N2O
Emission Factor in kg/mmBtu from 40 CFR 98	**	0.032	
Emission Factor in lb/mmBtu from AP-42			0.013
Potential Emission in tons/yr	**	3.06	0.56
Summed Potential Emissions in tons/yr		3.6	**
CO2e Total in tons/yr		239	**

**Methodology**

To convert from tons/hr capacity to MMBtu/hr capacity:

$$\text{Heat Input Capacity (MMBtu/hr)} = \text{Capacity (tons/hr)} \times \text{Higher Heating Value of wood fuel (Btu/lb)} \times (1 \text{ MMBtu}/10^6 \text{ Btu}) \times 2000 \text{ lbs}/1 \text{ ton}$$

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 170 CFR Part 98 Subpart A.

$$\text{Potential Emission (tons/yr)} = \text{Heat Input Capacity mmBtu/hr} \times \text{Emission Factor (kg/mmBtu)} \times 2.20462 \text{ lb/kg} \times 8760 \text{ hrs/yr} / 2,000 \text{ lb/ton}$$

$$\text{Potential Emission (tons/yr)} = \text{Heat Input Capacity mmBtu/hr} \times \text{Emission Factor (lb/mmBtu)} \times 8760 \text{ hrs/yr} / 2,000 \text{ lb/ton}$$

$$\text{CO2e (tons/yr)} = \text{CH4 Potential Emission ton/yr} \times \text{CH4 GWP (21)} + \text{N2O Potential Emission ton/yr} \times \text{N2O GWP (310)}. **$$

\*\* On July 1, 2011 EPA stayed the counting of CO2 emissions from Bioenergy and other Biogenic Sources.

**Appendix A: Emission Calculations  
Emissions Calculations  
Pressure (Retore) Vessels**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

Maximum Treated Wood Throughput (ft<sup>3</sup>/day)\* = 13618

Pollutant	AP-42 Emission Factor (lbs/ft <sup>3</sup> )	PTE (lbs/day)	PTE (lbs/yr)	PTE (tpy)
VOCs	5.80E-03	78.98	28829.31	14.41
Dibenzofuran	3.50E-05	0.48	173.97	0.09
Naphthalene	7.90E-05	1.08	392.68	0.20

**Total HAPs            0.28**

**Methodology**

\* The source has 2 pressure vessels that can process 6,809 ft<sup>3</sup>/day of treated wood, each.

AP-42 Emission Factors from AP-42 Chp. 10.8 Fifth Edition (08/99)

PTE (lbs/day) = [Maximum Treated Wood Throughput (ft<sup>3</sup>/day)] \* [AP-42 emission factor (lbs/ft<sup>3</sup> wood treated)]

PTE (lbs/yr) = PTE (lbs/day) \* 365 days/year

PTE (tpy) = PTE (lbs/day) \* 365 days/year \* (1/2000 lbs/ton)

**Appendix A: Emissions Calculations**  
**Volatile Organic Compounds (VOC) Emissions and Hazardous Air Pollutant (HAP) Emissions**  
**Tanks 1-4**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

**Volatile Organic Compounds (VOC) Emissions**

As part of MSOP 125-20663-00034, issued September 20, 2005, the potential to emit VOC from standing storage (breathing loss) and working loss from the fixed roof creosote storage tanks was estimated using Equations (1) and (2) from Section 4.3 of Compilation of Air Pollution Emission Factors, AP-42 Fourth Edition, September 1985.

**Breathing Loss (Lb, lbs/year)**

$$Lb = 2.26E-2(Mv)([P/(Pa-P)]^{0.68})(D^{1.73})(H^{0.51})(dT^{0.50})(Fp)(C)(Kc)$$

**Working Losses (Lw, lbs/year):**

$$Lw = 2.40E-5(Mv)(P)(V)(N)(Kn)(Kc)$$

Parameter	Tank 1	Tank 2	Tank 3	Tank 4
Mv = molecular weight of vapor in storage tank (lb/lb-mole)	172	172	172	172
P = true vapor pressure of creosote at bulk liquid conditions (72oF) (psia)*	0.870	0.870	0.870	0.870
Pa = average atmospheric pressure at tank location (psia)	14.7	14.7	14.7	14.7
(P/(Pa-P))	0.0629	0.0629	0.0629	0.0629
D = tank diameter (ft)	12.0	12.0	12.0	12.0
H = average vapor space height, including roof volume correction (ft)	15.0	15.0	15.0	15.0
dT = average ambient diurnal temperature change (oF)	30.0	30.0	30.0	30.0
Fp = paint factor (medium gray, good condition) (dimensionless)	1.4	1.4	1.4	1.4
C = adjustment factor for tank diameter of 12 ft (dimensionless)	0.63	0.63	0.63	0.63
Kc = product factor for organic liquids (dimensionless)	1.0	1.0	1.0	1.0
Tank Height (ft.)	35.0	35.0	35.0	35.0
V = Tank Volume (gallons)	29610.0	29610.0	29610.0	29610.0
Annual Throughput (gallons/year)	500000	500000	500000	500000
N = Number of tank turnovers per year (dimensionless)	16.89	16.89	16.89	16.89
Kn = turnover factor (dimensionless)	1.0	1.0	1.0	1.0

Breathing Loss (Lb) (lbs/year) =	838.6	838.6	838.6	838.6
Working Loss (Lw) (lbs/year) =	0.0606	0.0606	0.0606	0.0606
Breathing and Working Loss (lbs/year) =	838.7	838.7	838.7	838.7
Breathing and Working Loss (tons/year) =	0.419	0.419	0.419	0.419

**Total PTE of VOC (Breathing and Working Loss) (tons/year) = 1.68**

**Methodology**

Equations for breathing loss and working loss are from Section 4.3 of Compilation of Air Pollution Emission Factors, AP-42 Fourth Edition, September 1985.

\*True vapor pressure of creosote at bulk liquid conditions (72oF) equal to 6.0 kPa (0.87 psia, 45.0 mmHg)

**Hazardous Air Pollutant (HAP) Emissions**

HAP	CAS Number	% HAP in Creosote	PTE of HAPs (lbs/year)				Total PTE (lbs/year)	Total PTE (tons/year)
			Tank 1	Tank 2	Tank 3	Tank 4		
Acrolein	107-02-8	0.02%	0.17	0.17	0.17	0.17	0.67	0.00
Benzene	71-43-2	1.00%	8.39	8.39	8.39	8.39	33.55	0.02
o-Cresol	95-48-7	0.25%	2.10	2.10	2.10	2.10	8.39	0.00
m-Cresol	108-39-4	0.45%	3.77	3.77	3.77	3.77	15.10	0.01
p-Cresol	106-44-5	0.50%	4.19	4.19	4.19	4.19	16.77	0.01
Dibenzofuran	132-64-9	1.00%	8.39	8.39	8.39	8.39	33.55	0.02
Ethylbenzene	100-41-4	0.50%	4.19	4.19	4.19	4.19	16.77	0.01
Naphthalene	91-20-3	7.00%	58.71	58.71	58.71	58.71	234.83	0.12
Phenol	108-95-2	1.00%	8.39	8.39	8.39	8.39	33.55	0.02
Styrene	100-42-5	1.00%	8.39	8.39	8.39	8.39	33.55	0.02
Toluene	108-88-3	2.00%	16.77	16.77	16.77	16.77	67.10	0.03
Xylene	1330-20-7	4.00%	33.55	33.55	33.55	33.55	134.19	0.07
<b>Totals</b>							<b>628.0</b>	<b>0.31</b>

**Methodology**

PTE of HAPs (lbs/yr) = [Breathing and Working Loss (lbs/year)] \* [% HAP in Creosote]

Total PTE of HAPs (tons/yr) = [Total PTE of HAPs (lbs/year)] \* [1 ton/2000 lbs]

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

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

**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 (12/2003).

Vehicle Information (provided by source)

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 round trip (feet/trip)	Maximum round trip (mi/trip)	Maximum round trip (miles/day)	Maximum round trip miles (miles/yr)
Vehicle (round trip)	N/A	N/A	11.0	40.0	438.0	1056	0.200	2.19	799.4
<b>Total</b>			<b>11.0</b>	<b>40.0</b>	<b>438.0</b>				<b>799.4</b>

Average Vehicle Weight Per Trip =  $\frac{40.0}{1}$  tons/trip  
 Average Miles Per Trip =  $\frac{0.20}{1}$  miles/trip

Unmitigated Emission Factor,  $E_f = k \cdot [(s/12)^a] \cdot [(W/3)^b]$  (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-3 Sand/Gravel Processing Plant Road)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2)
W =	40.0	40.0	5.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor,  $E_{ext} = E \cdot [(365 - P)/365]$

Mitigated Emission Factor,  $E_{ext} = E \cdot [(365 - P)/365]$

where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, $E_f =$	8.28	2.11	0.08	lb/mile
Mitigated Emission Factor, $E_{ext} =$	5.44	1.39	0.05	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)
Vehicle (round trip)	3.31	0.84	0.03	2.18	0.55	0.02

**Methodology**

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

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PTE = Potential to Emit

**Appendix A: Emission Calculations  
VOC and HAP Emissions - Treated Storage Yard**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

**Emission Summary - Creosote**

Pollutant	Total Emissions	Total Emissions	Total Emissions
	(lb/yr)	(ton/yr)	(lb/hr)
VOC	12043.59	6.02	1.37
HAP	5664.19	2.83	0.65
Naphthalene	5381.96	2.69	0.61
Quinoline	201.59	0.10	0.02
Biphenyl	74.94	0.04	0.01
Dibenzofuran	5.71	0.00	0.00

**TIE STORAGE INFORMATION**

Volume of Tie	3.72	ft <sup>3</sup>
Number of Ties Treated per Month	127,728	ties
Rectangular Stacking Geometry		
Surface Area of One Tie Stack	590.00	ft <sup>2</sup>
Total Yard Surface Area per Month	367,111	ft <sup>2</sup>
Tram Bundle Stacking Geometry		
Surface Area of One Tram	244.27	ft <sup>2</sup>
Trams		
Surface Area of One Tram	244.27	ft <sup>2</sup>
Total Surface Area of Trams per Month	399,999	ft <sup>2</sup>

Month	0-30 Day Old Ties	30-60 Day Old Ties	60-90 Day Old Ties	Total Ties in Storage
January	46,000	94,000	0	140,000
February	46,000	94,000	0	140,000
March	46,000	94,000	0	140,000
April	46,000	94,000	0	140,000
May	46,000	94,000	0	140,000
June	46,000	94,000	0	140,000
July	46,000	94,000	0	140,000
August	46,000	94,000	0	140,000
September	46,000	94,000	0	140,000
October	46,000	94,000	0	140,000
November	46,000	94,000	0	140,000
December	46,000	94,000	0	140,000

**Monthly Naphthalene Emissions Calculations**

Month	Surface Area of Trams	Surface Area of Ties	Naphthalene Emissions from Trams	Naphthalene Emissions from Ties	Temperature Correction Factor	Naphthalene Emissions from Tie and Tram Storage
			lb/month	lb/month		lb/month
January	399,999	438,432	353.53	912.76	0.11	136.33
February	399,999	438,432	353.53	912.76	0.12	153.25
March	399,999	438,432	353.53	912.76	0.18	231.24
April	399,999	438,432	353.53	912.76	0.28	359.04
May	399,999	438,432	353.53	912.76	0.42	536.85
June	399,999	438,432	353.53	912.76	0.60	760.03
July	399,999	438,432	353.53	912.76	0.69	874.16
August	399,999	438,432	353.53	912.76	0.66	840.06
September	399,999	438,432	353.53	912.76	0.51	646.24
October	399,999	438,432	353.53	912.76	0.32	408.34
November	399,999	438,432	353.53	912.76	0.21	264.35
December	399,999	438,432	353.53	912.76	0.14	172.06

**Emissions Equation from Fugitive Emissions from Creosote Treated Wood Products Prepared for AWPI and Submitted to USEPA**

Based on 6 poles with a 699 ft<sup>2</sup> surface area, assumes 30 days per month

$$\begin{aligned}
 N1(t) &= 1.370E-03 & * \exp & ( & 0.46683 * t) & , & t \leq 0.25 \text{ days} \\
 N2(t) &= 2.777E-03 & * \exp & ( & -2.43497 * t) & , & 0.25 < t \leq 1.0 \text{ days} \\
 N3(t) &= 2.533E-04 & * \exp & ( & -0.04358 * t) & , & t > 1.0 \text{ days}
 \end{aligned}$$

$$\begin{aligned}
 \text{Calculated 24-hour Average California Pole Test Temperature} &= 80 \text{ }^\circ\text{F} \\
 \text{Temperature Correction Factor for Other Geographic Locations} &= \exp[-11,161.25*(1/T, \text{oF}+459.67)-(1/(80+459.67))]
 \end{aligned}$$

Calculations submitted by Tangent Rail Products, Inc.

**Appendix A: Emission Calculations  
VOC Emissions - Dehydrator (Creosote Solution)**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

Maximum Annual Throughput  
 854,100 gallons/year (water evaporated from Creosote Solution)

Parameter/Assumption	Emission Factor	Units	PTE (tons/year)	PTE (lbs/day)	PTE (lbs/hr)
Dehydrator Inlet VOC Concentration	0.0035	lbs VOC/gallon	1.49	8.19	0.34
Dehydrator Inlet HAP (Naphthalene) Concentration	0.0016	lbs Napthalene/gallon	0.68	3.74	0.16

Methodology

American Wood Preservers Institute Emissions Model used for Dehydrator Inlet VOC & HAP Concentrations  
 PTE = (Dehydrator Inlet Concentration Value lbs/gallon) \* (Water Evaporation Value gallons/year) \* (1 ton/2000 lbs)

**Appendix A: Emissions Calculations**  
**Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)**  
**#1 and #2 Fuel Oil**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

Heat Input Capacity MMBtu/hr: 8.40  
 Potential Throughput kgals/year: 525.60  
 S = Weight % Sulfur: 0.00114

Emission Factor in lb/kgal	Pollutant						
	PM*	PM10	direct PM2.5	SO2	NOx	VOC	CO
	2.0	2.4	2.1	0.16188 (142.0S)	20.0	0.34	5.0
Potential Emission in tons/yr	0.53	0.63	0.56	0.04	5.26	0.09	1.31

**Methodology**

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu  
 Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu  
 Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)  
 \*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.  
 Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

**Hazardous Air Pollutant (HAP) Emissions**

Emission Factor in lb/mmBtu	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	1.5E-04	1.1E-04	1.1E-04	1.1E-04	3.3E-04

Emission Factor in lb/mmBtu	HAPs - Metals (continued)			
	Mercury	Manganese	Nickel	Selenium
	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	1.1E-04	2.2E-04	1.1E-04	5.5E-04
<b>Total HAPs:</b>				<b>1.8E-03</b>

**Methodology**

No data was available in AP-42 for organic HAPs.  
 Potential Emissions (tons/year) = Throughput (mmBtu/hr)\*Emission Factor (lb/mmBtu)\*8,760 hrs/yr / 2,000 lb/ton

**Greenhouse Gas Emissions**

Emission Factor in lb/kgal	Greenhouse Gas		
	CO2	CH4	N2O
	22,300	0.216	0.26
Potential Emission in tons/yr	5,860	0.06	0.07
Summed Potential Emissions in tons/yr	5,861		
CO2e Total in tons/yr	5,883		

**Methodology**

The CO2 Emission Factor for #1 Fuel Oil is 21500. The CO2 Emission Factor for #2 Fuel Oil is 22300.  
 Emission Factors are from AP 42, Tables 1.3-3, 1.3-8, and 1.3-12 (SCC 1-03-005-01/02/03) Supplement E 9/99 (see erata file)  
 Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.  
 Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton  
 CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emission Calculations  
Boiler - #6 Fuel Oil**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

Heat Input Capacity MMBtu/hr	Potential Throughput		Limited Throughput kgals/year	S = Weight % Sulfur
	kgals/year	gal/hr		
8.40	490.56	56.00	208.25	1.529

Emission Factor in lb/kgal	Pollutant							
	PM** 17 *see below	PM10 12.3 *see below	direct PM2.5 5.50 *see below	SO2 240 (157S)	NOx 47.0	VOC 0.28	CO 5.0	
<b>Potential Emissions</b>	tons/yr 4.24	tons/yr 3.01	tons/yr 1.35	tons/yr 58.87	lb/hr 13.44	tons/yr 11.53	tons/yr 0.07	tons/yr 1.23
<b>Limited Emissions</b>	1.80	1.28	0.57	24.99	13.44	4.89	0.03	0.52

\*Particulate Matter emission factor for #6 fuel oil 9.19(s) + 3.22 lb/kgal, PM10 emission factor is (5.79(s) +3.41 )lb/kgal, and direct PM2.5 emission factor is (2.15(s) + 2.21)lb/kgal.

\*\* PM emission factor is filterable PM only. Condensable PM emission factor is 1.5 lb/kgal.

Limited SO2 (lb/hr) = 1.6 lb/MMBtu (Allowable under 326 IAC 7) \* Heat Input Capacity (MMBtu/hr)

**Methodology**

Normal Firing Emission Factors were used.

1 gallon of #6 Fuel oil has a heating value of 150,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.150 MM Btu

Emission Factors are from AP42 Tables 1.3-1, 1.3-2 and 1.3-3 (SCC 1-01-004-01/02/03 and 1-01-004-05 and 1-02-004-04)

(AP-42 Supplement E 9/98)

Emission (tons/yr) = Throughput (kgals/year) x Emission Factor (lb/kgal)/2,000 lb/ton

**Greenhouse Gas Emissions**

	Greenhouse Gas - Unlimited			Greenhouse Gas - Limited		
	CO2	CH4	N2O	CO2	CH4	N2O
Emission Factor in kg/mmBtu		0.003			0.003	
Emission Factor in lb/kgal	25000		0.53	25000		0.53
Potential Emission in tons/yr	6,132	0.24	0.13	2,603	0.00	0.06
Summed Potential Emissions in tons/yr		6,132			2,603	
CO2e Total in tons/yr		6,177			2,620	

**Methodology**

CO2 Emission Factor from AP-42, Chapter 1.3, Table 1.3-12. N2O Emission Factor from AP-42, Chapter 1.3, Table 1.3-9

CH4 Emission Factor is from Table C-2 of 40 CFR Part 98 Subpart C.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

CO2/N2O Unlimited Emissions (tons/yr) = Potential Throughput (kgal/yr) \* Emission Factor (lb/kgal) \* 1 ton / 2,000 lbs

CH4 Unlimited Emissions (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

CO2/N2O Limited Emissions (tons/yr) = Limited Throughput (kgal/yr) \* Emission Factor (lb/kgal) \* 1 ton / 2,000 lbs

CH4 Limited Emissions (tons/yr) = Limited Throughput (kgal/yr) x 150MMBtu/1kgal x 1yr/8760hr x Emission Factor (kg/mmBtu) x 2.20462 lb/kg 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 (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emission Calculations  
Boiler - #6 Fuel Oil  
Hazardous Air Pollutants (HAPs)**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	Limited Throughput kgals/year
8.40	490.56	208.25

HAPs - Metals							
	Antimony	Arsenic	Beryllium	Cadmium	Chloride (as HCl)*	Chromium	Chromium VI
Emission Factor in lb/kgal	5.25E-03	1.32E-03	2.78E-05	3.98E-04	3.57E-01	8.45E-04	2.48E-04
Potential Emission in tons/yr	1.3E-03	3.2E-04	6.8E-06	9.8E-05	<b>0.088</b>	2.1E-04	6.1E-05
Limited Emissions in tons/yr	5.5E-04	1.4E-04	2.9E-06	4.1E-05	<b>0.037</b>	8.8E-05	2.6E-05

HAPs - Metals							
	Cobalt	Fluoride (as HF)**	Lead	Manganese	Mercury	Nickel	Selenium
Emission Factor in lb/kgal	6.02E-03	3.93E-02	1.51E-03	3.00E-03	1.13E-04	8.45E-02	6.83E-04
Potential Emission in tons/yr	1.5E-03	9.6E-03	3.7E-04	7.4E-04	2.8E-05	2.1E-02	1.7E-04
Limited Emissions in tons/yr	6.3E-04	4.1E-03	1.6E-04	3.1E-04	1.2E-05	8.8E-03	7.1E-05

**Total Metal HAPs: 0.12**

HAPs - Speciated Organic Compounds (SOC)***						
	Benzene	Formaldehyde	Napthalene	1,1,1-Trichloroethane	Toluene	o-Xylene
Emission Factor in lb/kgal	2.14E-04	3.30E-02	1.13E-03	2.36E-04	6.20E-03	1.09E-04
Potential Emission in tons/yr	5.2E-05	8.1E-03	2.8E-04	5.8E-05	1.5E-03	2.7E-05
Limited Emissions in tons/yr	2.2E-05	3.4E-03	1.2E-04	2.5E-05	6.5E-04	1.1E-05

**Total SOC HAPs: 0.01**

**Unlimited**

**Total HAPs (Metals + SOC):** 0.13  
**Single Highest HAP:** 0.09 HCl

**Limited**

**Total HAPs (Metals + SOC):** 0.06  
**Single Highest HAP:** 0.04 HCl

**Methodology**

Emission Factors are from AP42 Tables 1.3-9 and 1.3-11

Potential Emissions (tons/year) = Throughput (kgal/year)\*Emission Factor (lb/kgal) / 2,000 lb/ton

\*Emission Factor for Chloride (as HCl) = [Emission Factor for Chloride] \* [36.46064/35.4527]

\*\*Emission Factor for Flouride (as HF) = [Emission Factor for Flouride] \* [20.0063432/18.9984032]

\*\*\*PTE for six (6) highest Speciated Organic Compounds; Other Speciated Organic Compounds have negligible emissions.

**Appendix A: Emission Calculations  
Creosote Product Recovery Tank (PRT)  
VOC and HAPs**

**Company Name:** Stella-Jones Corporation  
**Source Address:** 3818 S CR 50 E, Winslow, Indiana 47598  
**Administrative Amendment No.:** 125-33434-00034  
**Reviewer:** Marcia Earl  
**Date:** July 2013

The volume of the tanks is:  
 Volume of liquid through tank, Q:  
 Liquid Bulk Temperature (t):  
 Molecular Weight of the vapor, Mv:

286	bbl
10,429	bbl
212.0	°F
134.04	

Turnovers (N):	37.27
Turnover Factor (Kn):	0.97
Product Factor (Kp):	1.0
Vapor Pressure, Pv:	0.075

$$N = \frac{5.614Q}{V_{LX}}$$

$$V_{LX} = \frac{D^2}{4} H_{LX}$$

$$V_{LX} = 1570.80$$

Where:

D<sup>2</sup> = diameter, 10 ft

H<sub>LX</sub> = maximum liquid height, 20 ft

$$L_W = (0.52325 * M_V * P_{VA} * Q * K_N * K_P) / (460 + t)$$

Where:

L<sub>W</sub> = Working Losses

0.52325 is a factor assuming varying temperature derived from the following:

$$0.001 \frac{\text{lb mole}}{\text{psia} \cdot \text{bbl}} = \frac{\text{lb mole} \cdot ^\circ\text{R}}{10.731 \text{ psia} \cdot \text{ft}^3} \times \frac{1}{520 ^\circ\text{R}} \times \frac{1 \text{ ft}^3}{7.48 \text{ gal}} \times \frac{42 \text{ gal}}{1 \text{ bbl}} \times \frac{520 ^\circ\text{R}}{(t + 460) ^\circ\text{R}}$$

$$= \frac{0.52325 \text{ lb mole}}{(t + 460) ^\circ\text{R} \text{ psia} \cdot \text{bbl}}$$

Q = Annual throughput volume

t = temperature, °F

P<sub>VA</sub> = Vapor pressure of the mixture at the daily average surface liquid temperature, psia

Mv = Vapor molecular weight of the mixture, lb mole

Kn = Turnover factor, dimensionless

where: for turnovers >36, Kn = (180 + N)/6N

for turnovers <36, Kn = 1

N = number of turnovers

Kp = working loss product factor, dimensionless (1.00)

Total uncontrolled VOC working losses are:	78.89 lb/yr.
Air emission control device efficiency, %:	0.0
Total VOC working losses are:	78.89 lb/yr.

Individual releases are calculated by applying the vapor mass fraction determined elsewhere.

Total working losses of VOCs: 78.89 lb/yr. →

Total working losses of naphthalene:	43.53 lb/yr.	0.022 ton/yr.
Total working losses of HAPs:	49.84 lb/yr.	0.025 ton/yr.

**PROCESS WATER EVAPORATOR/ PRODUCT RECOVERY TANK - LOSSES DURING EVAPORATION**

The water portion of the liquid sent to the process water evaporator/product recovery tank tank is assumed to evaporate completely. This water is conservatively estimated to contain creosote constituents at their individual solubility limits. Because of naphthalene's very high solubility as compared to that of other constituents and the large percentage of the total vapor mass fraction it represents (≈ 70%) over a water phase, the total release is calculated based on naphthalene, then adjusted to a total creosote release by a factor of 1/0.7, or 1.4. These releases are considered to be point source releases.

Amount of water evaporated, gallons:	219,000	Naphthalene emissions, lbs:	54.87
Solubility of Naphthalene, mg/l:	30		
Conversion factor to Creosote:	1.40		
Liquid Bulk Temperature (t), °F:	212.0		

Total uncontrolled creosote working losses during evaporation are:	76.81 lb/yr.
Air emission control device efficiency, %:	0.0
Total creosote working losses during evaporation are:	76.81 lb/yr.

TOTALS FROM WORKING LOSSES AND EVAPORATION	
Total Potential Emissions of VOCs:	155.70 lb/yr.
Total Potential Emissions of HAPs:	117.77 lb/yr.
Total Potential Emissions of Naphthalene:	98.39 lb/yr.

Total Potential Emissions of VOCs:	0.08 ton/yr.
Total Potential Emissions of HAPs:	0.06 ton/yr.
Total Potential Emissions of Naphthalene:	0.05 ton/yr.

Individual releases are calculated by applying the vapor mass fraction determined elsewhere.

Total evaporative losses of VOCs are:	76.81 lb/yr.
Total evaporative losses of HAPs are:	67.93 lb/yr.
Total evaporative losses of Naphthalene are:	54.87 lb/yr.



# 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](http://www.idem.IN.gov)

**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

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

TO: Steve Basham  
Stella Jones Corporation  
3818 S CR 50 E  
Winslow, Indiana 47598

DATE: August 21, 2013

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

SUBJECT: Final Decision  
MSOP – Administrative Amendment  
125-33434-00034

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](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 6/13/2013

# Mail Code 61-53

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2		Mr. Paul Lake 2364 South CR 750 E. Winslow IN 47598 (Affected Party)										
3		Ms. Andrea Wood 4565 E CR 750 N Petersburg IN 47567 (Affected Party)										
4		Pike County Commissioners 801 Main Street Petersburg IN 47567 (Local Official)										
5		Petersburg City Council and Mayors Office 704 Main St, City Hall Petersburg IN 47567 (Local Official)										
6		Pike County Health Department 801 Main St, Courthouse Petersburg IN 47567-1298 (Health Department)										
7		Mr. Meyer Larry 4715 S. CR 175 E. Winslow IN 47598 (Affected Party)										
8		Mr. Gary Leavitt 502 S. Lakeview Dr. Petersburg IN 47567 (Affected Party)										
9		Tom & Sandy Loveless 138 Nichols Ave Petersburg IN 47567 (Affected Party)										
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11		Mr. Mark Wilson Evansville Courier & Press P.O. Box 268 Evansville IN 47702-0268 (Affected Party)										
12		Rachel Lewis 12710 N Green River Rd Evansville In 47725 (Affected Party)										
13		Patrick Kirkham Two Gateway Center 603 Stanwix St, Suite 1000 Pittsburgh PA 15222 (Source & addl contact)										
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