

October 3, 2008

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
(7004 1350 0003 2876 0376)

08-909E CAB
File No. 0625-01

Mr. Don Bryan
President and Chief Executive Officer
Tradewinds Forest Products, LLC
P.O. Box 43
O'okala, Hawaii 96774

Dear Mr. Bryan:

Subject: Covered Source Permit (CSP) No. 0625-01-C
Application for Initial Permit No. 0625-01
Tradewinds Forest Products, LLC
132.4 MMBtu/hr. Boiler and Veneer Dryer
Located at: O'okala, Hawaii
Date of Expiration: October 2, 2013

The subject covered source permit is issued in accordance with Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1. The covered source permit is based on the plans, specifications, and information submitted as part of your application dated November 10, 2006, the addendum dated August 22, 2007, and correspondence dated September 12, 2007.

The covered source permit is issued subject to the conditions and requirements set forth in the following attachments:

Attachment I: Standard Conditions
Attachment II: Special Conditions
Attachment II - INSIG: Special Conditions - Insignificant Activities
Attachment III: Annual Fee Requirements
Attachment IV: Annual Emissions Reporting Requirement

The following forms are enclosed for your use and submittal as required:

Compliance Certification Form
Excess Emission and Monitoring System Performance Summary Report
Annual Emissions Report Form: Fuel and Production
Monitoring Report: Boiler Heat Input, Boiler Fuel, and Boiler and
Veneer Dryer ESP Voltage
Monitoring Report Form: Opacity Exceedances

Mr. Don Bryan
October 3, 2008
Page 2

The following are for use in monitoring visible emissions:

Visible Emissions Form Requirements
Visible Emissions Form
The Ringelmann Chart

This permit: (a) shall not in any manner affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to personal injury or property damage caused by, resulting from or arising out of the design, installation, maintenance, or operation of the equipment; and (c) in no manner implies or suggests that the Hawaii Department of Health, or its officers, agents, or employees, assumes any liability, directly or indirectly, for any loss due to personal injury or property damage caused by, resulting from or arising out of the design, installation, maintenance, or operation of the equipment.

Please note that pursuant to Title 40 of the Code of Federal Regulations, Part 64, Compliance Assurance Monitoring (CAM), Section 64.5(b), a CAM submittal, in accordance with 40 CFR §64.4, is required to be submitted five years after the issue date of this permit, as part of your renewal application.

Sincerely,

THOMAS E. ARIZUMI, P.E., CHIEF
Environmental Management Division

CL:nn
Enclosures

c: Ed Yamamoto, EHS – Hilo
CAB Monitoring Section

**ATTACHMENT I: STANDARD CONDITIONS
COVERED SOURCE PERMIT NO. 0625-01-C**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

This permit is granted in accordance with the Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1, Air Pollution Control, and is subject to the following standard conditions:

1. Unless specifically identified, the terms and conditions contained in this permit are consistent with the applicable requirement, including form, on which each term or condition is based.

(Auth.: HAR §11-60.1-90)
2. This permit, or a copy thereof, shall be maintained at or near the source and shall be made available for inspection upon request. The permit shall not be willfully defaced, altered, forged, counterfeited, or falsified.

(Auth.: HAR §11-60.1-6; SIP §11-60-11)²
3. This permit is not transferable whether by operation of law or otherwise, from person to person, from place to place, or from one piece of equipment to another without the approval of the Department of Health, except as provided in HAR, Section 11-60.1-91.

(Auth.: HAR §11-60.1-7; SIP §11-60-9)²
4. A request for transfer from person to person shall be made on forms furnished by the Department of Health.

(Auth.: HAR §11-60.1-7)
5. In the event of any changes in control or ownership of the facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The permittee shall notify the succeeding owner and operator of the existence of this permit and its conditions by letter, copies of which will be forwarded to the Department of Health and the U.S. Environmental Protection Agency (EPA), Region 9.

(Auth.: HAR §11-60.1-5, §11-60.1-7, §11-60.1-94)
6. The facility covered by this permit shall be constructed and operated in accordance with the application, and any information submitted as part of the application, for the Covered Source Permit. There shall be no deviation unless additional or revised plans are submitted to and approved by the Department of Health, and the permit is amended to allow such deviation.

(Auth.: HAR §11-60.1-2, §11-60.1-4, §11-60.1-82, §11-60.1-84, §11-60.1-90)
7. This permit (a) does not release the permittee from compliance with other applicable statutes of the State of Hawaii, or with applicable local laws, regulations, or ordinances,

CSP No. 0625-01-C
Attachment I
Page 2 of 6
Issuance Date: October 3, 2008
Expiration Date: October 2, 2013

and

(b) shall not constitute, nor be construed to be an approval of the design of the covered source.

(Auth.: HAR §11-60.1-5, §11-60.1-82)

8. The permittee shall comply with all the terms and conditions of this permit. Any permit noncompliance constitutes a violation of HAR, Chapter 11-60.1, state implementation plan and the Clean Air Act and is grounds for enforcement action; for permit termination, suspension, reopening, or amendment; or for denial of a permit renewal application.

(Auth.: HAR §11-60.1-3, §11-60.1-10, §11-60.1-19, §11-60.1-90)

9. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid.

(Auth.: HAR §11-60.1-90)

10. The permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the terms and conditions of this permit.

(Auth.: HAR §11-60.1-90)

11. This permit may be terminated, suspended, reopened, or amended for cause pursuant to HAR, Sections, 11-60.1-10 and 11-60.1-98, and Hawaii Revised Statutes (HRS), Chapter 342B-27, after affording the permittee an opportunity for a hearing in accordance with HRS, Chapter 91.

(Auth.: HAR §11-60.1-3, §11-60.1-10, §11-60.1-90, §11-60.1-98)

12. The filing of a request by the permittee for the termination, suspension, reopening, or amendment of this permit, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(Auth.: HAR §11-60.1-90)

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

(Auth.: HAR §11-60.1-90)

14. The permittee shall notify the Department of Health and U.S. EPA Region 9 in writing of the following dates:

- a. The **anticipated date of initial start-up** for each emission unit of a new source or significant modification not more than sixty (60) days or less than thirty (30) days prior to such date;
- b. The **actual date of construction commencement** within fifteen (15) days after such date; and
- c. The **actual date of start-up** within fifteen (15) days after such date.

(Auth.: HAR §11-60.1-90)

15. The permittee shall furnish, in a timely manner, any information or records requested in writing by the Department of Health to determine whether cause exists for terminating, suspending, reopening, or amending this permit, or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Department of Health copies of records required to be kept by the permittee. For information claimed to be confidential, the Director of Health may require the permittee to furnish such records not only to the Department of Health but also directly to the U.S. EPA Region 9 along with a claim of confidentiality.

(Auth.: HAR §11-60.1-14, §11-60.1-90)

16. The permittee shall notify the Department of Health in writing, of the **intent to shut down air pollution control equipment for necessary scheduled maintenance** at least twenty-four (24) hours prior to the planned shutdown. The submittal of this notice shall not be a defense to an enforcement action. The notice shall include the following:
 - a. Identification of the specific equipment to be taken out of service, as well as its location and permit number;
 - b. The expected length of time that the air pollution control equipment will be out of service;
 - c. The nature and quantity of emissions of air pollutants likely to be emitted during the shutdown period;
 - d. Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; and
 - e. The reasons why it would be impossible or impractical to shut down the source operation during the maintenance period.

(Auth.: HAR §11-60.1-15; SIP §11-60-16)²

17. **Except for emergencies which result in noncompliance with any technology-based emission limitation in accordance with HAR, Section 11-60.1-16.5, in the event any emission unit, air pollution control equipment, or related equipment malfunctions or breaks down in such a manner as to cause the emission of air pollutants in violation of HAR, Chapter 11-60.1 or this permit, the permittee shall immediately notify the Department of Health of the malfunction or breakdown, unless the protection of personnel or public health or safety demands immediate attention to the malfunction or breakdown**

and makes such notification infeasible. In the latter case, the notice shall be provided as soon as practicable. Within five (5) working days of this initial notification, the permittee shall also submit, in writing, the following information:

- a. Identification of each affected emission point and each emission limit exceeded;
- b. Magnitude of each excess emission;
- c. Time and duration of each excess emission;
- d. Identity of the process or control equipment causing the excess emission;
- e. Cause and nature of each excess emission;
- f. Description of the steps taken to remedy the situation, prevent a recurrence, limit the excessive emissions, and assure that the malfunction or breakdown does not interfere with the attainment and maintenance of the National Ambient Air Quality Standards and state ambient air quality standards;
- g. Documentation that the equipment or process was at all times maintained and operated in a manner consistent with good practice for minimizing emissions; and
- h. A statement that the excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

The submittal of these notices shall not be a defense to an enforcement action.

(Auth.: HAR §11-60.1-16; SIP §11-60-16)²

18. The permittee may request confidential treatment of any records in accordance with HAR, Section 11-60.1-14.

(Auth.: HAR §11-60.1-14, §11-60.1-90)

19. This permit shall become invalid with respect to the authorized construction if construction is not commenced as follows:

- a. Within eighteen (18) months after the permit takes effect, is discontinued for a period of eighteen (18) months or more, or is not completed within a reasonable time.
- b. For phased construction projects, each phase shall commence construction within eighteen (18) months of the projected and approved commencement dates in the permit. This provision shall be applicable only if the projected and approved commencement dates of each construction phase are defined in Attachment II, Special Conditions, of this permit.

(Auth.: HAR §11-60.1-9, §11-60.1-90)

20. The Department of Health may extend the time periods specified in Standard Condition No. 19 upon a satisfactory showing that an extension is justified. Requests for an extension shall be submitted in writing to the Department of Health.

(Auth.: HAR §11-60.1-9, §11-60.1-90)

21. The permittee shall submit fees in accordance with HAR, Chapter 11-60.1, Subchapter 6.

(Auth.: HAR §11-60.1-90)

22. All certifications shall be in accordance with HAR, section 11-60.1-4.

(Auth.: HAR §11-60.1-4, HAR §11-60.1-90)

23. The permittee shall allow the Director of Health, the Regional Administrator for the U.S. EPA and/or an authorized representative, upon presentation of credentials or other documents required by law:

- a. To enter the premises where a source is located or emission-related activity is conducted, or where records must be kept under the conditions of this permit and inspect at reasonable times all facilities, equipment, including monitoring and air pollution control equipment, practices, operations, or records covered under the terms and conditions of this permit and request copies of records or copy records required by this permit; and
- b. To sample or monitor at reasonable times substances or parameters to ensure compliance with this permit or applicable requirements of HAR, Chapter 11-60.1.

(Auth.: HAR §11-60.1-11, §11-60.1-90)

24. Within thirty (30) days of **permanent discontinuance of the construction, modification, relocation, or operation of the facility covered by this permit**, the discontinuance shall be reported in writing to the Department of Health by a responsible official of the source.

(Auth.: HAR §11-60.1-8; SIP §11-60-10)²

25. Each permit renewal application shall be submitted to the Department of Health and the U.S. EPA Region 9 no less than twelve months and no more than eighteen months prior to the permit expiration date. The director may allow a permit renewal application to be submitted no less than six months prior to the permit expiration date, if the director determines that there is reasonable justification.

(Auth.: HAR §11-60.1-101, 40 CFR §70.5(a)(1)(iii))¹

26. The terms and conditions included in this permit, including any provision designed to limit a source's potential to emit, are federally enforceable unless such terms, conditions, or requirements are specifically designated as not federally enforceable.

(Auth.: HAR §11-60.1-93)

27. The compliance plan and compliance certification submittal requirements shall be in accordance with HAR, Sections 11-60.1-85 and 11-60.1-86. As specified in HAR, Section 11-60.1-86, the compliance certification shall be submitted to the Department of Health and the U.S. EPA Region 9 once per year, or more frequently as set by any applicable requirement.

(Auth.: HAR §11-60.1-90)

28. **Any document (including reports) required to be submitted by this permit shall be certified as being true, accurate, and complete by a responsible official in accordance with HAR, Sections 11-60.1-1 and 11-60.1-4, and shall be mailed to the following address:**

**Clean Air Branch
Environmental Management Division
Hawaii Department of Health
P.O. Box 3378
Honolulu, HI 96801-3378**

Upon request and as required by this permit, all correspondence to the State of Hawaii Department of Health associated with this Covered Source Permit shall have duplicate copies forwarded to:

**Chief
Permits Office, (Attention: Air-3)
Air Division
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105**

(Auth.: HAR §11-60.1-4, §11-60.1-90)

29. To determine compliance with submittal deadlines for time-sensitive documents, the postmark date of the document shall be used. If the document was hand-delivered, the date received ("stamped") at the Clean Air Branch shall be used to determine the submittal date.

(Auth.: HAR §11-60.1-5, §11-60.1-90)

¹ The citations to the Code of Federal Regulations (CFR) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.

CSP No. 0625-01-C
Attachment I
Page 8 of 6
Issuance Date: October 3, 2008
Expiration Date: October 2, 2013

² The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.

**ATTACHMENT II: SPECIAL CONDITIONS
COVERED SOURCE PERMIT NO. 0625-01-C**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

In addition to the Standard Conditions of the Covered Source Permit, the following Special Conditions shall apply to the permitted facility:

Section A. Equipment Description

1. This permit encompasses the following equipment and associated appurtenances:
 - a. One (1) 132.4 MMBTU/hr Factory Sales and Engineering, Inc. boiler, model VS2D-82, serial no. 06-2031;
 - b. One (1) MTSA-80-9CYT-A-WRV-STA Mechanical Dust Collector;
 - c. One (1) PPC dry electrostatic precipitator, model 11R-1230-2712S;
 - d. One (1) 12,122 square foot per hour Raute veneer dryer (3/8" basis);
 - e. One (1) PPC wet electrostatic precipitator, model 12R-49-240; and
 - f. One (1) 7,300 gal/min Marley cooling tower with two cells.

2. An identification tag or name plate shall be displayed on the equipment listed under Special Condition A.1 to show manufacturer, model no., and serial no., where applicable. The identification tag or name plate shall be permanently attached to the equipment in a conspicuous location.

(Auth.: HAR §11-60.1-3)

(Auth.: HAR §11-60.1-5, §11-60.1-90)

Section B. Applicable Federal Regulations

1. The Boiler is subject to the provisions of the following federal regulations:
 - a. 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subpart A, General Provisions; and
 - b. 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

2. The permittee shall comply with all of the applicable provisions of these standards, including all emission limits, notification, testing, monitoring, and reporting requirements. The major requirements of these standards are detailed in the special conditions of this permit.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR § 60.1, §60.46b)¹

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR Part 60)¹

Section C. Emission Limits

1. Boiler Emission Limits

- a. Emissions for the boiler, provided for under Special Condition A.1.a, shall not exceed the limits provided in *40 CFR Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, the limits guaranteed by the manufacturer, and the limits proposed by the permittee, as shown in the following table.

Boiler Emission Limits		
Pollutant/Opacity	Emission Limit (lb/hour except for opacity)	Emission Limit (lb/MMBtu)
Carbon Monoxide (CO)	40.4	
Nitrogen Oxides (NOx)	30.5	
Particulate Matter (PM)	3.8	0.030
Hydrogen Chloride (HCl)	1.3	
Opacity	20%	

- b. HCl emissions from the boiler shall not exceed 5.7 tons per rolling 12-month period. The permittee shall demonstrate compliance with this emission limit by demonstrating compliance with the wood fuel heat input limit of Special Condition D.5.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR § 60.42b - 60.43b)¹

2. Boiler CO, NOx, and HCl Emissions

The CO, NOx, and HCl emission limits, provided for under Special Condition C.1.a, shall be based on a 3-hour average, and shall be complied with at all times, except during boiler startup and shutdown. Compliance with these emission limits shall be demonstrated by initial and annual source performance testing.

(Auth.: HAR §11-60.1-3, §11-60.1-36, §11-60.1-90, §11-60.1-161; 40 CFR §60.42b)¹

3. Boiler PM Emissions

The PM emission limit, provided for under Special Condition C.1.a, shall be based on an

average of three runs, shall be complied with at all times, except during boiler startup, shutdown, and malfunction. Compliance with the PM emission limit shall be demonstrated by initial and annual source performance testing.

(Auth.: HAR §11-60.1-3, §11-60.1-36, §11-60.1-90, §11-60.1-161; 40 CFR §60.42b)¹

4. Boiler Opacity of Visible Emissions

- a. The opacity limit, provided for under Special Condition C.1.a, shall be complied with at all times, except during boiler startup, shutdown, and malfunction.
- b. For any six (6) minute averaging period, the boiler shall not exhibit visible emissions of twenty (20) percent or greater, except as follows: during start-up, shutdown, or equipment breakdown, the boiler may exhibit visible emissions greater than twenty (20) percent opacity, but not exceeding sixty (60) percent opacity, for a period aggregating not more than six (6) minutes in any sixty (60) minute period.

(Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90, §11-60.1-161; 40 CFR §60.43b)¹

5. Veneer Dryer VOC Emissions

The permittee shall not discharge or cause the discharge into the atmosphere from the operation of the veneer dryer volatile organic compound (VOC) emissions in excess of the following specified limit:

<u>Veneer Dryer Emission Limit</u>	
<u>Pollutant</u>	<u>Emission Limit</u> <u>3-hour average</u> <u>(lb/hour)</u>
Volatile Organic Compound (VOC) as propane	6.65

Emissions averaged over any three (3) hour period shall not exceed the specified limit. Total emissions from the veneer dryer heating and cooling sections shall be combined to determine compliance with the emission limit.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

Section D. Operational Limits

1. Boiler

- a. Stack Height

The minimum stack height of the boiler, provided for under Special Condition A.1.a, shall be 110 feet above ground. Certification of the final stack height shall be provided to the Department of Health in accordance with Special Condition F.2.

b. Fuel Usage

The boiler shall only be fired on the following fuels:

- i. Wood fuel, as provided for under Special Condition D.1.c;
- ii. Fuel oil no. 2, as provided for under Special Condition D.1.d; and
- iii. Biodiesel Grades S15 or S500, as provided for under Special Condition D.1.e.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

c. Wood Fuel

- i. All wood fuel fired by the boiler shall be untreated and uncontaminated by paint, glues, preservatives, oils, added chemicals, or similar foreign substances. Use of construction demolition debris of any type as wood fuel is explicitly prohibited.
- ii. Wood fuel shall consist of chips of uncontaminated whole tree wood, as provided for under Special Condition D.1.c.i, including stumps, branches, bark, chips, and sawdust incidental to facility operations and the logging operations of Tradewinds or their subcontractors.
- iii. Uncontaminated wood, as provided for under Special Condition D.1.c.i, may be obtained from outside sources. Records on each vendor or source supplying wood fuel for use in the boiler, provided for under Special Condition A.1.a, and the nature and amount of wood fuel (pounds or tons) furnished by each vendor or source shall be maintained and provided to the Department of Health upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

d. Fuel Oil No. 2

- i. Fuel oil no. 2 usage shall not exceed a maximum of 68,854 gallons per rolling 12-month period. For each six gallon quantity of S500 grade biodiesel used, the fuel consumption limit for fuel oil no. 2 shall be reduced by one gallon over each rolling 12-month period.
- ii. The fuel oil no. 2 annual capacity factor, as provided for under Special Condition E.2.b, shall not exceed 10%.

- iii. The sulfur content of the fuel oil no. 2 fired in the boiler shall not exceed a maximum of 0.3% by weight. Fuel purchase receipts shall be maintained to demonstrate compliance with this provision.
- iv. The nitrogen content of fuel oil no. 2 fired in the boiler shall not exceed a maximum of 0.3% by weight. Fuel purchase receipts shall be maintained to demonstrate compliance with this provision.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-38, §11-60.1-90, 40 CFR §§60.42b & 60.44b)¹

e. Biodiesel

- i. Biodiesel S500 usage (maximum fuel sulfur content of 0.05% by weight) shall not exceed a maximum of 413,124 gallons per rolling 12-month period. For each gallon of fuel oil no. 2 used, the fuel consumption limit for biodiesel S500 shall be reduced by six gallons over each rolling 12-month period.
- ii. The Department of Health may, at any time, require the permittee to conduct an analysis of the constituents and properties of the biodiesel and establish limits to ensure compliance with any federal or state requirements.
- iii. The permit conditions prescribed herein may at any time be revised by the Department of Health to reflect federal or state promulgated rules on biodiesel. The Department of Health also reserves the right to impose additional operational controls and restrictions to abate odors if a site inspection indicates controls and/or restrictions are necessary to further control the burning of biodiesel.
- iv. Records on each vendor or source supplying biodiesel for use as fuel in the boiler, provided for under Special Condition A.1.a, and the amount of biodiesel (gallons) furnished by each vendor or source shall be maintained and provided to the Department of Health upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

2. Electrostatic Precipitators (ESPs)

a. Boiler Dry ESP

- i. The dry ESP, provided for under Special Condition A.1.c shall be operated at all times during operation of the boiler, provided for under Special Condition A.1.a. The permittee shall not operate the boiler if a problem affecting PM control

efficiency of the dry ESP is observed or apparent at any time. The permittee shall investigate and correct the problem before resuming boiler operation.

- ii. The dry ESP first stage voltage shall be maintained in the range of 30 - 40 kV. The boiler shall not be operated if the dry ESP first stage voltage is below 30 kV. Maintenance or servicing shall be performed to correct the first stage operating voltage before operation of the boiler and dry ESP is resumed.
- iii. The dry ESP second stage voltage shall be maintained in the range of 40 - 55 kV. The boiler shall not be operated if the dry ESP second stage voltage is below 40 kV. Maintenance or servicing shall be performed to correct the second stage operating voltage before operation of the boiler and dry ESP is resumed.

b. Veneer Dryer Wet ESP

- i. The wet ESP, provided for under Special Condition A.1.e shall be operated at all times during operation of the dryer, provided for under Special Condition A.1.d. The permittee shall not operate the dryer if a problem affecting PM control efficiency of the wet ESP is observed or apparent at any time. The permittee shall investigate and correct the problem before resuming dryer operation.
- ii. The wet ESP voltage shall be maintained in the range of 30-55 kV. The dryer shall not be operated if the wet ESP voltage is below 30 kV. Maintenance or servicing shall be performed to correct the wet ESP operating voltage before operation of the dryer and wet ESP is resumed.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

3. Fugitive Dust and Emissions

- a. The permittee shall take measures to control fugitive dust (e.g., wet suppression, enclosures, dust screens, etc.) at material transfer points, stockpiles, and throughout the facility. The Department of Health may at any time require the permittee to further abate fugitive dust emissions if an inspection indicates poor or insufficient control.
- b. The permittee shall not cause or permit fugitive dust to become airborne without taking reasonable precautions and shall not cause or permit the discharge of visible emissions of fugitive dust beyond the lot line of the property boundary on which the emissions originate.

(Auth.: HAR §11-60.1-3, §11-60.1-33, §11-60.1-90)

4. Plant Maintenance

All equipment provided for under Special Condition A.1, shall be maintained in good operating condition at all times with scheduled inspections and maintenance as recommended by the manufacturer, or as needed.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

5. Wood Fuel Heat Input Limit

The total heat input to the boiler from the wood fuel of Special Condition D.1.c, shall not exceed the following calculated maximum heat input, in MMBtu, per rolling 12-month period:

Boiler maximum heat input per rolling 12-month period, when firing wood fuel = 11,400 lb HCl/per rolling 12-month period ÷ A

11,400 lb HCl/per rolling 12-month period = 5.7 tons of HCl per rolling 12-month period

A = boiler HCl lb/MMBtu emission rate from the initial source performance test x 1.20

The HCl lb/MMBtu emission rate is from initial source performance test and shall be based on the average of three runs.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

6. Cooling Tower

a. The cooling tower shall not use any chromium-containing water treatment chemicals.

b. The cooling tower shall be equipped with a high-efficiency drift eliminator system that will limit the drift to about 0.055% of the circulating water, or about four gallons per minute.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

Section E. Monitoring and Recordkeeping Requirements

1. Records

All records, including support information, shall be maintained for at least five (5) years from the date of the monitoring sample, measurement, test, report, or application. Support information includes all maintenance, inspection, calibration, and repair records, and copies of all reports required by this permit. These records shall be true, accurate, maintained in a permanent form suitable for inspection and made available to the Department of Health or its representative upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

2. Boiler

a. Daily Records on Fuel Usage and Steam Load

The permittee shall record and maintain daily records on the boiler, provided for under Special Condition A.1.a. Records shall include:

- i. Calendar date;
- ii. Number of hours that the boiler was operated each day;
- iii. Hourly steam load; and
- iv. Amount of each type of fuel (including wood fuel, fuel oil no. 2, and biodiesel) combusted each day in the boiler.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.46b(p))¹

b. Annual Capacity Factor

- i. Annual capacity factor is defined as the ratio between the actual heat input to the boiler from a particular fuel during a calendar year and the potential heat input to the steam generating unit had the boiler been operated for 8,760 hours during a calendar year at its maximum steady state design heat input capacity.
- ii. The annual capacity factor shall be calculated for wood fuel and for fuel oil no. 2. The annual capacity factor shall be determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month for each of the two fuels.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90; 40 CFR §60.46b(d))¹

c. Wood Fuel

i. Wood Feed Rate

- (1) The permittee shall operate and maintain a non-resetting weigh scale for the continuous and permanent recording of the total amount of wood fuel fed to the boiler, in pounds. All wood fuel fed to the boiler shall be recorded by the weigh scale monitoring system.

(a) The following information shall be recorded on a daily basis:

- (i) Date of the meter reading;
- (ii) Beginning meter reading for the day;
- (iii) Ending meter reading for the day; and
- (iv) Total amount of wood fed to the boiler, in pounds, for the day.

- (b) The following information shall be recorded on a monthly basis:
 - (i) Total amount of wood fed to the boiler, in pounds, for each month; and
 - (ii) Total amount of wood fed to the boiler, in pounds, on a rolling 12-month basis.

- (c) The permittee shall record on a calendar annual basis the total amount of wood fed to the boiler, in pounds, to determine the annual capacity factor and to report on annual emissions.

- (d) The weigh scale shall be calibrated on a monthly basis or more frequently as recommended by the manufacturer. Each calibration of the weigh scale shall be recorded on the Inspection, Maintenance, and Repair Log of Special Condition E.4. Upon written request and justification, the Department of Health may approve a less frequent calibration schedule if it can be demonstrated that the weigh scale, due to minimum variations, need not be calibrated on a monthly basis. The calibration schedule for the weigh scale shall be no less frequent than on a monthly basis for the first year of operations or as recommended by the manufacturer.

ii. Wood Heat Input

Total wood heat input to the boiler shall be recorded on a monthly and rolling 12-month basis for the purpose of demonstrating compliance with Special Condition D.5. and shall be determined as follows:

- (1) Samples of wood shall be collected and analyzed for the wood's lower heating value (in MMBtu/lb wood) in accordance with Special Condition E.2.c.iii.(2) and the wood sampling and analysis protocol of Special Condition F.4.a.;

- (2) The total monthly wood heat input to the boiler shall be determined by multiplying the total pounds of wood fed to the boiler for each month from Special Condition E.2.c.i.(1)(b)(i) by the wood's lower heating value of Special Condition E.2.c.iii.(2) for the month.

iii. Wood Sampling and Analysis

- (1) The permittee shall submit a wood sampling and analysis protocol for the boiler in accordance with the Special Condition F.4.a.;

- (2) On a monthly basis, the wood shall be sampled and analyzed in accordance

with the wood sampling protocol of Special Condition F.4.a. to determine the lower heating value of the fuel. Samples shall be collected for analysis at least once per calendar month. Samples shall be collected at least 20 days from the last sample collected or less as approved by the Department of Health. The results of the wood sampling analysis shall be submitted to the Department of Health in accordance with Special Condition F.4.b.; and

- (3) On a quarterly basis, the wood shall be sampled and analyzed in accordance with the wood sampling protocol of Special Condition F.4.a. to determine the proximate and ultimate analysis, and the chlorine content of the fuel. Samples shall be collected for analysis at least once per calendar quarter. Samples shall be collected at least 60 days from the last sample collected or less as approved by the Department of Health. The results of the wood sampling analysis shall be submitted to the Department of Health in accordance with Special Condition F.4.b. Upon written request and justification, the Department of Health may approve a less frequent sampling and analysis schedule if it can be demonstrated that there are minimum variations in the wood fuel characteristics. The sampling and analysis schedule shall be no less frequent than on a quarterly basis for the first year of operations.

d. Fuel Oil No. 2 and Biodiesel Fuel Meters

The permittee shall install, operate, and maintain non-resetting fuel meters on the boiler, provided for under Special Condition A.1.a, record meter readings, and determine the number of gallons of fuel oil no. 2, biodiesel S500, and biodiesel S15 fired in the boiler. Records shall include:

- i. Date of meter reading;
- ii. Time of meter reading;
- iii. Reading at the beginning of each day;
- iv. Total gallons of fuel oil no. 2 used each day and each month;
- v. Total gallons of fuel oil no. 2 used on a rolling 12-month basis;
- vi. The fuel oil no. 2 limit adjusted according to the amount of biodiesel S500 used during each rolling 12-month period (see Special Condition D.1.d.i.) for the end of each month;
- vii. Total gallons of biodiesel S500 used on a monthly and rolling 12-month basis;
- viii. The biodiesel S500 limit adjusted according to the amount fuel oil no. 2 used during each rolling 12-month period (see Special Condition D.1.e.i) for the end of each month; and
- ix. Total gallons of biodiesel S15 used on a monthly and annual basis.

Records on the gallons of fuel oil no. 2 used shall be used to determine compliance with Special Condition D.1.d.i, to determine the annual capacity factor, and to report on annual emissions. Records on the gallons of biodiesel S500 used shall be used to

determine compliance with Special Condition D.1.e.i. and to report on annual emissions. Records on the gallons of biodiesel S15 used shall be used to report on annual emissions.

e. Fuel Oil No. 2 and Biodiesel Purchase Receipts

- i. Fuel oil no. 2 purchase receipts, showing the fuel type, sulfur and nitrogen contents (percentages by weight) of the fuel oil no. 2, delivery date, and amount of fuel (gallons) delivered to the site for use in the boiler shall be maintained. Fuel sulfur and nitrogen contents may be demonstrated by providing the supplier's fuel specification sheet for the type of fuel purchased and received if sulfur and nitrogen contents are not indicated on the purchase receipts.
- ii. Biodiesel purchase receipts, showing the supplier, delivery date, and amount of fuel (gallons) delivered to the site for use in the boiler shall be maintained along with any biodiesel laboratory analyses or data on biodiesel constituents and properties.

f. Vendors or Sources of Wood Fuel

Records shall be maintained on vendors or sources furnishing wood fuel for use in the boiler, provided for under Special Condition A.1.a. Records shall include:

- i. Date that wood fuel for the boiler is delivered to the facility;
- ii. Name of the vendor or source;
- iii. Description of the wood fuel accepted for use in the boiler (the description shall include tree species and tree section such as bark, leaves, branches, trunk, etc.); and
- iv. Amount of wood fuel (pounds or tons).

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

3. ESP Voltages

- a. The voltages of the two stages of the dry ESP, provided for under Special Condition D.2.a, and the voltage of the wet ESP, provided for under Special Condition D.2.b, shall be checked routinely, or at least once per day when the facility is operating, to ensure effective collection of PM is occurring and to determine whether maintenance is required pursuant to Special Condition D.4.
- b. Written records shall be maintained on the operating voltages of the two stages of the dry ESP and the wet ESP each day.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

4. Inspection, Maintenance, and Repair Log

The permittee shall maintain records on equipment inspections, maintenance, and repair work performed on the equipment and associated appurtenances listed in Special Condition A.1, focusing in particular, on inspections, maintenance, and repair work that affect air pollutant emissions. Records shall include:

- a. Date that the inspection, maintenance, or repair work was performed;
- b. A description of the findings and any work performed on the equipment covered by this permit, including the parts inspected and repaired; and
- c. Name and title of personnel performing the inspection or work.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

5. Veneer Dryer Visible Emissions (V.E.)

a. V.E. Observations

For monthly and annual V.E. observations, two consecutive sets of observations shall be recorded. Each set shall last six minutes in duration and consist of twenty-four (24) readings taken at fifteen (15) second intervals. Records shall be completed and maintained in accordance with the enclosed "Visible Emissions Form Requirements."

b. Annual Observations

Annual V.E. observations shall be conducted by a certified reader in accordance with 40 CFR Part 60, Appendix A, Method 9.

c. Monthly Observations

Monthly V.E. observations shall be conducted in accordance with 40 CFR Part 60, Appendix A, Method 9, or by using the Ringelmann Chart provided. Monthly observations need not be conducted by a certified reader.

d. Veneer Dryer

- i. The permittee shall conduct **annual** (*calendar year*) V.E. observations of the veneer dryer, provided for under Special Condition A.1.d, in accordance with Special Conditions E.5.a and E.5.b.
- ii. Except in those months where annual V.E. observations of the dryer are conducted, the permittee shall conduct **monthly** (*calendar month*) V.E. observations in accordance with Special Conditions E.5.a and E.5.c.

- iii. When conducting V.E. observations of the dryer, the distance between the observer and the dryer shall be at least three (3) stack heights, but not more than 402 meters (0.25 miles).
- iv. Upon written request and justification by the permittee, the Department of Health may waive the requirement for the **annual** V.E. observations of the dryer. The waiver request shall be submitted prior to the required annual V.E. observations and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior V.E. observations indicating compliance by a wide margin, documentation of continuing compliance, and documentation that veneer dryer operation has not changed since the previous **annual** V.E. observations. Please note that if the annual V.E. observations requirement is waived, monthly V.E. observations must still be performed in accordance with Special Condition E.5.c.

(Auth.: HAR §11-60.1-3, §11-60.1-5 §11-60.1-11, §11-60.1-90))

6. Performance Test

Initial source performance tests for the boiler and veneer dryer, provided for under Special Condition A.1.a. and A.1.d, as well as annual source performance tests, thereafter, shall be conducted pursuant to Section G. Records of test plans, summaries and results shall be maintained.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

7. Boiler Continuous Monitoring System

- a. Prior to the date of initial startup and thereafter, the permittee shall at its own expense install, operate, calibrate, and maintain the following continuous monitoring systems (CMS) for the boiler to measure and record the following parameters or data. The associated date and time of the monitored data shall also be recorded.

- i. Continuous Opacity Monitoring System (COMS)

Stack percent opacity using a Continuous Opacity Monitoring System (COMS) shall be measured. The COMS shall meet U.S. EPA monitoring performance standards as specified in Attachment II, Special Condition Nos. E.7.b and E.7.c. The span value of the COMS shall be between 60 and 80 percent.

- b. The procedures under 40 CFR §60.13 shall be followed for the installation, evaluation, and operation of the CMS.
 - c. The CMS shall also be operated according to the performance specifications of

40 CFR Part 60, Appendix B.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR Part 60.48b; SIP §11-60-15)^{1, 2}

Section F. Notification and Reporting Requirements

1. Notification and reporting pertaining to the following events shall be done in accordance with Attachment I, Standard Conditions Nos. 14, 16, 17 and 25, respectively:
 - a. *Anticipated date of initial start-up, actual date of construction commencement, and actual start-up date;*
 - b. *Intent to shut down air pollution control equipment for necessary scheduled maintenance;*
 - c. *Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedances due to emergencies); and*
 - d. *Permanent discontinuance of construction, modification, relocation, or operation of the facility covered by this permit.*

(Auth.: HAR §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; SIP §11-60-10, §11-60-16)²

2. Certification of Stack Height

Within **thirty (30) days** after installation of the boiler, provided for under Special Condition A.1.a, the permittee shall provide the Department of Health with a certification of the final stack height, indicating the date on which stack construction was completed.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

3. Deviations

The permittee shall report in writing **within five (5) working days** any deviations from the permit requirements, including those attributable to upset conditions, the probable cause of such deviations and any corrective actions or preventative measures taken. Corrective actions may include a requirement for additional source testing, more frequent monitoring, or the implementation of a corrective action plan.

(Auth.: HAR §11-60.1-3, §11-60.1-15, §11-60.1-16, §11-60.1-90)

4. Wood Sampling and Analysis

- a. Protocol

At least sixty (60) days prior to first fire of the boiler, the permittee shall submit to the Department of Health for approval, in writing, a wood sampling and analysis protocol for determining the wood's proximate and ultimate analysis, the chlorine content, and lower heating value of the fuel. The protocol shall address in detail the sampling and testing methodology to ensure the samples collected are representative of the wood fired in the boiler during the sampling period. The protocol shall also identify the requirement that the collection of each sample include a recorded description of the wood samples collected (such as the tree species and tree section such as bark, leaves, branches, trunk, etc.). The permittee shall obtain approval for the sampling protocol prior to the first fire of the boiler.

Manufacturer's literature on the weigh scale required by Special Condition E.2.c.i.(1) shall be submitted to the Department of Health along with the wood sampling and analysis protocol. The literature should include information on the accuracy, manufacturer's recommended calibration methods and frequency, and operating details of the weigh scale.

b. Submittal of Sampling and Analysis Results

Results of the wood sampling and analysis shall be submitted to the Department of Health **within sixty (60) days** after the end of each semi-annual calendar period (January 1 - June 30 and July 1 - December 31). The results shall include the sampling collection date, analyzed date, the proximate and ultimate analysis, the chlorine content of the fuel, the lower heating value of the fuel, a description of the wood samples collected and certification that the wood samples were collected and analyzed according to the wood sampling protocol of Special Condition F.4.a.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

5. Source Performance Testing and Performance Specification Testing

- a. At least **thirty (30) days prior** to conducting a source performance test pursuant to Section G, the permittee shall submit a written performance test plan to the Department of Health in accordance with Special Condition G.5.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8, SIP §11-60-15)^{1, 2}

- b. Written reports of the results of the source performance tests conducted to demonstrate compliance shall be submitted to the Department of Health **within sixty (60) days after the completion of the performance test**, and shall be in conformance with Special Condition G.10.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR § 60.49b)¹

- c. At least thirty (30) days prior to conducting a performance specification test on the

continuous opacity monitoring system the permittee shall notify the Department of Health, in writing, of its performance. The testing date shall be in accordance with the performance test date identified in 40 CFR Part 60, Section 60.13.

6. Monitoring Report Forms

The permittee shall submit **semi-annually** the following reports to the Department of Health. The reports shall be submitted **within sixty (60) days** after the end of each semi-annual calendar period (January 1 - June 30 and July 1 - December 31).

a. For the *Monitoring Report: Boiler Heat Input, Boiler Fuel, and Boiler and Veneer Dryer ESP Voltage*, report on:

- i. The wood fuel heat input limit of Special Condition D.5.;
- ii. The total wood fuel heat input to the boiler on a monthly and rolling 12-month basis;
- iii. The total gallons of biodiesel S500 fired in the boiler each month and each rolling 12-month period;
- iv. The biodiesel S500 limit adjusted according to the amount of fuel oil no. 2 used during each rolling 12-month period for the end of each month;
- v. The total gallons of fuel oil no. 2 fired in the boiler each month and each rolling 12-month period;
- vi. The fuel oil no. 2 limit adjusted according to the amount of biodiesel used during each rolling 12-month period.
- vii. Sulfur and nitrogen contents (percent by weight) of the fuel oil no. 2 fired in the boiler during the reporting period;
- viii. Any instances where treated wood (e.g., painted or chemically treated wood) was fired in the boiler. If no such instances occurred, state so on the report; and
- ix. Any instances where ESP operating voltages were below the normal range. If there were no such incidents, state so on the report.

b. For the *Monitoring Report: Opacity Exceedances*, report on:

- i. Date of exceedance;
- ii. Six (6) minute average opacity reading;
- iii. Possible reason for exceedance;
- iv. Duration of exceedance; and
- v. Corrective actions taken. If there were no exceedances, state so on the report.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

7. Annual Emissions Reports

As required by Attachment IV and in conjunction with the requirements of Attachment III, Annual Fee Requirements, the permittee shall report **annually** the total tons per year emitted of each regulated air pollutant, including any hazardous air pollutants. The reporting of annual emissions is due **within sixty (60) days following the end of each calendar year**. Upon the written request of the permittee, the deadline for reporting of annual emissions may be extended, if the Department of Health determines that reasonable justification exists for the extension. The permittee shall submit **annually** the *Annual Emissions Report Form: Fuel and Production* to the Department of Health.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

8. Compliance Certification Form

During the permit term, the permittee shall submit at least **annually** to the Department of Health and U.S. EPA Region 9, the enclosed compliance certification form pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include, at a minimum, the following information:

- a. Identification of each permit term or condition that is the basis of the certification;
- b. The compliance status;
- c. Whether compliance was continuous or intermittent;
- d. The methods used for determining the compliance status of the source currently and over the reporting period;
- e. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification including the requirements of Section 114(a) (3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act; and
- f. Any additional information as required by the Department of Health including information to determine compliance.

The compliance certification shall be submitted **within ninety (90) days after** the end of each calendar year, and shall be signed and dated by a responsible official or authorized representative.

Upon written request of the permittee, the deadline for submitting the compliance certification may be extended, if the Department of Health determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90)

9. Boiler Excess Emissions and Monitor Downtime Reporting

- a. The permittee shall submit to the Department of Health and U.S. EPA Region 9 an **Excess Emissions and Monitoring Systems Performance Report** in accordance

with 40 CFR Part 60, §60.7(c). Excess emissions and monitor downtimes shall be reported for all periods of unit operation, including startup, shutdown, and malfunction. The **Excess Emissions and Monitoring Systems Performance Report** shall include the following:

- i. The magnitude of excess emissions computed in accordance with 40 CFR Part 60, §60.13(h), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period;
 - ii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
 - iii. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
 - iv. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- b. For the purposes of this permit, excess emissions and monitor downtimes shall be defined as follows:
- i. **Excess Emissions**

Any opacity measurements, as measured by the continuous opacity monitoring system, exceeding the opacity limits set forth Special Condition No. C.1.
 - ii. **Monitor Downtime**

A period of monitor downtime shall be any six (6) minute period in which sufficient data are not obtained to validate the opacity.
- c. The enclosed **Excess Emissions and Monitoring System Performance Summary Report** form or an equivalent form shall be submitted in conjunction with the **Excess Emissions and Monitoring Systems Performance Report** of Attachment II, Special Condition No. F.9.a. The reports shall be postmarked by the **30th day following the end of each semiannual calendar period.**

- d. Excess emissions exceeding the emission limit set forth in Attachment II, Special Condition No. C.1. indicated by the continuous opacity monitoring system shall be considered violations of the opacity limit.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR Part 60.7, 40 CFR Part 60.13, 40 CFR Part 60.48b; SIP §11-60-15)^{1,2}

10. Cooling Tower

- a. Within thirty (30) days after completing construction of the cooling tower, the permittee shall submit to the Department of Health the final specifications of the cooling tower including the high-efficiency drift eliminator system and the specified designed total drift loss percentage of the cooling tower.
- b. Within one hundred eighty (180) days after initial startup of the cooling tower, the permittee shall submit to the Department of Health analyses of the total dissolved solids of the water used in the cooling tower.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

Section G. Testing Requirements

1. Boiler Performance Testing

- a. CO, NO_x (as NO₂), PM, and Opacity of Visible Emissions

Within **sixty (60) days** after achieving the maximum production rate of the boiler, provided for under Special Condition A.1.a, but not later than **one hundred eighty (180) days after** initial start-up of the boiler, and annually thereafter, the permittee shall conduct, or cause to be conducted, performance tests on the boiler to determine the emission rates of CO, NO_x (as NO₂), PM and opacity of visible emissions for the purpose of determining compliance with the emission limits provided for under Special Condition C.1.

- b. HCl Emissions

- i. Initial Testing

Within **sixty (60) days after** achieving the maximum production rate of the boiler, provided for under Special Condition A.1.a, but not later than **one-hundred eighty (180) days after** initial start-up of the boiler the permittee shall conduct, or cause to be conducted an initial performance tests on the boiler to determine the emission rate of HCl for the purpose of determining compliance with the emission limit provided for under Special Condition C.1.a and to establish the maximum wood fuel heat input of Special Condition D.5. The source test for HCl emissions shall be performed with the boiler firing wood fuel.

- 1) The test report (as required by Special Condition G.10) for the initial source performance test for HCl shall include:
 - (a) The operating conditions of the boiler at the time of the test;
 - (b) The HCl emission rate in lb/MMBtu (lower heating value) and lb/hr;
 - (c) The boilers calculated wood fuel heat input limit of Special Condition No. D.5;
 - (d) The proximate and ultimate analysis, the chlorine content of the fuel, the lower heating value of the fuel, and a description of the wood samples collected for each of the three (3) test runs. The collection of the wood sample and the analysis shall follow the wood sampling protocol of Special Condition F.4.a to ensure the samples collected during the test are representative of the fuel fired in the boiler at the time of the test; and
 - (e) The records or a summary of the records containing all of the information maintained in accordance with Special Condition E.2.f from the start of boiler operations up until the performance date of the test.

ii. Annual Testing

On an **annual** basis, the permittee shall conduct, or cause to be conducted performance tests on the boiler to determine the HCl emission rate for the purpose of determining compliance with the emission limit of Special Condition C.1.a. The source test for HCl shall be performed with the boiler firing wood fuel.

- 1) The test report (as required by Special Condition G.10) for each annual HCl source performance test shall include:
 - (a) The operating conditions of the boiler at the time of the test;
 - (b) The proximate and ultimate analysis, the chlorine content of the fuel, the lower heating value of the fuel, and a description of the wood samples collected for each of the three (3) test runs. The collection of the wood sample and the analysis shall follow the wood sampling protocol of Special Condition F.4.a to ensure the samples collected during the test are representative of the fuel fired in the boiler at the time of the test; and
 - (c) The records or a summary of the records containing all of the information maintained in accordance with Special Condition E.2.f starting from the

date of the prior source performance test up to the date of the current test.

c. Acetaldehyde, Acrolein, Benzene, Chlorine, Formaldehyde, Manganese, Styrene, and Toluene Emissions

i. Initial Testing

Within **sixty (60) days** after achieving the maximum production rate of the boiler, provided for under Special Condition A.1.a, but not later than **one hundred eighty (180) days after** initial start-up of the boiler the permittee shall conduct, or cause to be conducted, performance tests on the boiler to determine the emission rates of Acetaldehyde, Acrolein, Benzene, Chlorine, Formaldehyde, Manganese, Styrene, and Toluene Emissions in lb/MMBtu and lb/hr. The source test for Acetaldehyde, Acrolein, Benzene, Chlorine, Formaldehyde, Manganese, Styrene, and Toluene emissions shall be performed with the boiler firing wood fuel.

ii. Annual Testing

The Department of Health may at any time require additional source tests be performed, including the requirement for annual source testing, for Acetaldehyde, Acrolein, Benzene, Chlorine, Formaldehyde, Manganese, Styrene, and Toluene emissions.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; §11-60.1-161, 40 CFR §60.8 & §60.46b)¹

2. Boiler Test Methods

Performance tests for CO, NO_x, PM, and HCl emissions and for the opacity of visible emissions shall be conducted and the results reported in accordance with test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The performance tests shall be conducted at the maximum expected capacity of the boiler. The following test methods or U.S. EPA approved equivalent methods or other methods with prior written consent from the Department of Health shall be used.

- a. Performance tests for CO emissions shall be conducted using EPA Methods 1-4 and 10.
- b. Performance tests for NO_x emissions shall be conducted using EPA Methods 1-4, 7E and 19.
- c. Performance tests for PM emissions shall be conducted as provided under Special Condition G.3.

- d. Performance tests for HCl emissions shall be conducted using EPA Methods 1-4 and Method 26 or 26A.
- e. Performance tests for Acetaldehyde, Acrolein, Benzene, Chlorine, Formaldehyde, Manganese, Styrene, and Toluene Emissions shall be conducted using EPA Method 320.
- f. During the initial performance test, compliance with the opacity standard of Attachment II, Special Condition No. C.1. shall be determined in accordance with 40 CFR §60.45c(a)(8). The permittee shall record COMS monitoring data produced during the initial performance test and shall furnish the Department of Health a written report of the monitoring results along with the Method 9 and 40 CFR §60.8 performance test results; and
- g. During the annual performance tests, compliance with the opacity standard of Attachment II, Special Condition No. C.1. shall be determined with COMS data collection in accordance with 40 CFR §60.11(e)(5).
- h. The performance tests for CO, NO_x, PM, HCl, Acetaldehyde, Acrolein, Benzene, Chlorine, Formaldehyde, Manganese, Styrene, and Toluene shall consist of three (3) separate runs for each pollutant using the applicable test method. For the purpose of determining compliance with an applicable regulation, the arithmetic mean of the results from the three (3) runs shall apply.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; §11-60.1-161, 40 CFR §60.8 & §60.46b)¹

3. Boiler PM Performance Tests

- a. Method 1 shall be used for sample and velocity traverse.
 - i. Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Department of Health when necessitated by process variables or other factors.
 - ii. Note that Method 1 cannot be used under the following conditions:
 - (1) Cyclonic or swirling gas flow at the sampling location;
 - (2) Stack duct with a diameter less than 12 inches or a cross-sectional area less than 113 square inches; and
 - (3) Sampling location less than two stack or duct diameters downstream or less than a half diameter upstream from a flow disturbance.

- b. Method 2 shall be used for velocity and volumetric flow rate.
- c. Method 3A shall be used for gas analysis.
- d. Method 4 shall be used for moisture content of stack gases.
- e. Method 5 shall be used for PM concentration.
 - i. For Method 5, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160, plus or minus 14°C (320 plus or minus 25°F).
 - ii. Particulate emissions for Method 5 shall be reported in two (2) categories:
 - (1) Front half (filter and probe); and
 - (2) Front and back half (probe, filter, and impingers). When conducting back half clean-up, all connectors and tubing of the back half sampling train up to and including the first impinger shall be properly rinsed. All rinses shall be included in the analysis for back half.
 - iii. For each Method 5 run, the emission rate expressed in nanograms per joule heat input shall be determined using:
 - (1) The oxygen or carbon dioxide measurements and PM measurements obtained under 40 §CFR 60.46b;
 - (2) The dry basis F factor; and
 - (3) The dry basis emission rate calculation procedure contained in Method 19.
- f. The performance test shall consist of three (3) separate runs using the applicable test method. For the purpose of determining compliance with the permit requirements, the arithmetic mean of the results from the three (3) runs shall apply. For each test run, the following operating parameters shall be recorded and reported:
 - i. Wood fuel feed rate measured in tons per hour;
 - ii. Boiler steam rate in pounds per hour; and
 - iii. First and second stage voltage readings for the dry ESP servicing the boiler.
- g. For each run, the PM emission rate shall be determined by the equation $\text{pounds/hour} = Q_s \times c_s$, where Q_s = volumetric flow rate of the total effluent in dscf/hour, as determined in accordance with Method 2, and c_s = concentration of PM in pounds/dscf, as determined in accordance with Method 5.
- h. Any deviations from these conditions, test methods, or procedures may be cause for rejection of the test results unless the deviations are approved by the Department of Health before the tests.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; §11-60.1-161, 40 CFR Appendix A, §60.8)¹

4. Veneer Dryer Performance Testing

a. VOC Emissions

Within **sixty (60) days** after achieving the maximum production rate of the veneer dryer, provided for under Special Condition A.1.d, but not later than **one hundred eighty (180) days** after initial start-up of the veneer dryer, and annually thereafter, the permittee shall conduct, or cause to be conducted, performance tests on the veneer dryer to determine the emission rate of volatile organic compounds (VOC) for the purpose of determining compliance with the emission limits of Special Condition C.5.

b. Acetaldehyde, Formaldehyde, Methanol, Methyl Isobutyl Ketone, and Phenol Emissions

i. Initial Testing

Within **sixty (60) days** after achieving the maximum production rate of the veneer dryer, provided for under Special Condition A.1.d, but not later than **one hundred eighty (180) days** after initial start-up of the veneer dryer the permittee shall conduct, or cause to be conducted, performance tests on the veneer dryer to determine the emission rates of Acetaldehyde, Formaldehyde, Methanol, Methyl Isobutyl Ketone, and Phenol in lb/MMBtu and lb/hr.

ii. Annual Testing

The Department of Health may at any time require additional source tests be performed, including the requirement for annual source testing, for Acetaldehyde, Formaldehyde, Methanol, Methyl Isobutyl Ketone, and Phenol emissions.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8)¹

5. Veneer Dryer Test Methods

Performance tests shall be conducted and the results reported in accordance with test methods set forth in 40 CFR 60, Part 60.8 and Appendix A. The performance tests shall be conducted at the maximum expected capacity of the veneer dryer. The following test methods or U.S. EPA approved equivalent methods or other methods with prior written consent from the Department of Health shall be used:

a. Performance tests for VOC emissions shall be conducted using EPA Method 25A.

- b. Performance tests for Acetaldehyde, Formaldehyde, Methanol, Methyl Isobutyl Ketone, and Phenol emissions shall be conducted using EPA Method 320.
- c. The performance tests for VOC, Acetaldehyde, Formaldehyde, Methanol, Methyl Isobutyl Ketone, and Phenol shall consist of three (3) separate runs for each pollutant using the applicable test method. For the purpose of determining compliance with an applicable regulation, the arithmetic mean of the results from the three (3) runs shall apply.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8)¹

6. Test Expense and Monitoring

The performance tests shall be made at the expense of the permittee and shall be conducted at the maximum expected operating capacities of the boiler and the veneer dryer, provided for under Special Condition A.1.a and A.1.d. All performance tests may be monitored by the Department of Health.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

7. Test Plan

At least thirty (30) days prior to conducting a performance test, the permittee shall submit a written performance test plan to the Department of Health and U.S. EPA, Region 9 that includes test dates and duration, test locations, test methods, source operation, and other parameters that may affect the test results. Such a plan shall conform to U.S. EPA guidelines including quality assurance procedures. A test plan or quality assurance plan that does not have the approval of the Department of Health may be grounds to invalidate any test and require a retest.

(Auth.: HAR §11-60.1-3, §11-60.1-90; CFR 60.8)¹

8. Test Scheduling

If, after **thirty (30) days** notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the permittee shall submit a notice to the Department of Health at least **seven (7) days** prior to any rescheduled performance test.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8)¹

9. Test Deviations

Any deviations from these conditions, test methods, or procedures may be cause for rejection of the test results unless such deviations are approved by the Department of Health before the tests.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

10. Test Report

Within **sixty (60) days** after completion of a performance test, the permittee shall submit to the Department of Health and U.S. EPA, Region 9 the test report which shall include the operating conditions of the facility at the time of the test, the summarized test results, a comparison of test results to permit emission limits, pertinent support calculations, and field and laboratory data. The results shall be recorded and reported in accordance with 40 CFR Part 60 Appendix A and §60.8.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

11. Test Waiver

Upon written request and justification, the Department of Health may waive the requirement for, or a portion of, a specific source performance test. The waiver request is to be submitted prior to the required test and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior performance test indicating compliance by a wide margin, documentation of continuing compliance, and further that operations of the source have not changed since the previous source test.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

Section H. Agency Notification

Any document (including reports) that is required to be submitted by this covered source permit shall be done in accordance with Attachment I, Standard Condition 28.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

¹ The citations to the Code of Federal Regulations (CFR) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.

² The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.

**ATTACHMENT II - INSIG
SPECIAL CONDITIONS - INSIGNIFICANT ACTIVITIES
COVERED SOURCE PERMIT NO. 0625-01-C**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

In addition to the Standard Conditions of the Covered Source Permit, the following Special Conditions shall apply to the permitted facility:

Section A. Equipment Description

This attachment encompasses insignificant activities listed in HAR, §11-60.1-82(f) and (g) for which provisions of this permit and HAR, Subchapter 2, General Prohibitions, apply.

(Auth.: HAR §11-60.1-3)

Section B. Operational Limitations

1. The permittee shall take measures to operate applicable insignificant activities in accordance with the provisions of HAR, Subchapter 2 for visible emissions, fugitive dust, incineration, process industries, sulfur oxides from fuel combustion, storage of volatile organic compounds, volatile organic compound water separation, pump and compressor requirements, and waste gas disposal.

(Auth.: HAR §11-60.1-3, §11-60.1-82, §11-60.1-90)

2. The Department of Health may at any time require the permittee to further abate emissions if an inspection indicates poor or insufficient controls.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-82, §11-60.1-90)

Section C. Monitoring and Recordkeeping Requirements

1. The Department of Health reserves the right to require monitoring, recordkeeping, or testing of any insignificant activity to determine compliance with the applicable requirements.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

2. All records shall be maintained for at least five (5) years from the date of any required monitoring, recordkeeping, testing, or reporting. These records shall be true, accurate, and maintained in a permanent form suitable for inspection and made available to the Department of Health or its authorized representative upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

Section D. Notification and Reporting

Compliance Certification

During the permit term, the permittee shall submit at least **annually** to the Department of Health and U.S. EPA Region 9, the attached *Compliance Certification Form* pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include, at a minimum, the following information:

1. The identification of each term or condition of the permit that is the basis of the certification;
2. The compliance status;
3. Whether compliance was continuous or intermittent;
4. The methods used for determining the compliance status of the source currently and over the reporting period;
5. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act; and
6. Any additional information as required by the Department of Health including information to determine compliance.

The compliance certification shall be submitted **within ninety (90) days** after the end of each calendar year, and shall be signed and dated by a responsible official.

Upon written request of the permittee, the deadline for submitting the compliance certification may be extended, if the Department of Health determines that reasonable justification exists for the extension.

In lieu of addressing each emission unit as specified in *Compliance Certification Form*, the permittee may address insignificant activities as a single unit provided compliance is met with all applicable requirements. If compliance is not totally attained, the permittee shall identify the specific insignificant activity and provide the details associated with the noncompliance.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90)

CSP No. 0625-01-C
Attachment II - INSIG
Page 3 of 3
Issuance Date: October 3, 2008
Expiration Date: October 2, 2013

Section E. Agency Notification

Any document (including reports) required to be submitted by this Covered Source Permit shall be done in accordance with Attachment I, Standard Condition No. 28.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

**ATTACHMENT III: ANNUAL FEE REQUIREMENTS
COVERED SOURCE PERMIT NO. 0625-01-C**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

The following requirements for the submittal of annual fees are established pursuant to Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1, Air Pollution Control. Should HAR, Chapter 60.1 be revised such that the following requirements are in conflict with the provisions of HAR, Chapter 60.1, the permittee shall comply with the provisions of HAR, Chapter 60.1:

1. Annual fees shall be paid in full:
 - a. Within **sixty (60) days** after the end of each calendar year; and
 - b. Within **thirty (30) days** after the permanent discontinuance of the covered source.
2. The annual fees shall be determined and submitted in accordance with Hawaii Administrative Rules, Chapter 11-60.1, Subchapter 6.
3. The annual emissions data for which the annual fees are based shall accompany the submittal of any annual fees and be submitted on forms furnished by the Department of Health.
4. The annual fees and the emission data shall be mailed to:

**Clean Air Branch
Environmental Management Division
Hawaii Department of Health
P. O. Box 3378
Honolulu, HI 96801-3378**

**ATTACHMENT IV: ANNUAL EMISSIONS REPORTING REQUIREMENTS
COVERED SOURCE PERMIT NO. 0625-01-C**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the nature and amounts of emissions.

1. Complete the attached form(s):

Annual Emissions Report Form: Fuel and Production

2. The reporting period shall be from January 1 to December 31 of each year. All reports shall be submitted to the Department of Health within **sixty (60) days** after the end of each calendar year and shall be mailed to the following address:

**Clean Air Branch
Environmental Management Division
Hawaii Department of Health
P. O. Box 3378
Honolulu, HI 96801-3378**

3. The permittee shall retain the information submitted, including all emission calculations. These records shall be in a permanent form suitable for inspection, retained for a minimum of five (5) years, and made available to the Department of Health upon request.
4. Any information submitted to the Department of Health without a request for confidentiality shall be considered public record.
5. In accordance with HAR, Section 11-60.1-14, the permittee may request confidential treatment of specific information, including information concerning secret processes or methods of manufacture, by submitting a written request to the Director and clearly identifying the specific information that is to be accorded confidential treatment.

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0625-01-C
PAGE 1 OF ____

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following certification at least annually, or more frequently as requested by the Department.

(Make Copies of the Compliance Certification Form for Future Use)

For Period: _____ Date: _____

Company/Facility Name: _____

Responsible Official (Print): _____

Title: _____

Responsible Official (Signature): _____

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

**COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0625-01-C
(CONTINUED, PAGE 2 OF ___)**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

The purpose of this form is to evaluate whether or not the facility was in compliance with the permit terms and conditions during the covered period. If there were any deviations to the permit terms and conditions during the covered period, the deviation(s) shall be certified as *intermittent compliance* for the particular permit term(s) or condition(s). Deviations include failure to monitor, record, report, or collect the minimum data required by the permit to show compliance. In the absence of any deviation, the particular permit term(s) or condition(s) may be certified as *continuous compliance*.

Instructions:

Please certify Sections A, B, and C below for continuous or intermittent compliance. Sections A and B are to be certified as a group of permit conditions. Section C shall be certified individually for each operational and emissions limit condition as listed in the Special Conditions section of the permit (list all applicable equipment for each condition). Any deviations shall also be listed individually and described in Section D. The facility may substitute its own generated form in verbatim for Sections C and D.

1. A. Attachment I, Standard Conditions

<u>Permit term/condition</u> All standard conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent
---	--	---

B. Special Conditions - Monitoring, Recordkeeping, Reporting, Testing, and INSIG

<u>Permit term/condition</u> All monitoring conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent
<u>Permit term/condition</u> All recordkeeping conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent
<u>Permit term/condition</u> All reporting conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent
<u>Permit term/condition</u> All testing conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent
<u>Permit term/condition</u> All INSIG conditions	<u>Equipment(s)</u> All Equipment(s) listed in the permit	<u>Compliance</u> Continuous Intermittent

**COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0625-01-C
(CONTINUED, PAGE ____ OF ____)**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

C. Special Conditions - Operational and Emissions Limitations

Each permit term/condition shall be identified in chronological order using attachment and section numbers (e.g., Attachment II, B.1, Attachment IIA, Special Condition No. B.1.f, etc.). Each equipment shall be identified using the description stated in Section A of the Special Conditions (e.g., unit no., model no., serial no., etc.). Check all methods (as required by permit) used to determine the compliance status of the respective permit term/condition.

<u>Permit term/condition</u>	<u>Equipment(s)</u>	<u>Method</u>	<u>Compliance</u>
		monitoring recordkeeping reporting testing none of the above	Continuous Intermittent
		monitoring recordkeeping reporting testing none of the above	Continuous Intermittent
		monitoring recordkeeping reporting testing none of the above	Continuous Intermittent
		monitoring recordkeeping reporting testing none of the above	Continuous Intermittent
		monitoring recordkeeping reporting testing none of the above	Continuous Intermittent
		monitoring recordkeeping reporting testing none of the above	Continuous Intermittent
		monitoring recordkeeping reporting testing none of the above	Continuous Intermittent

(Make Additional Copies if Needed)

**COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0625-01-C
(CONTINUED, PAGE ___ OF ___)**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

D. Deviations

<u>Permit Term/ Condition</u>	<u>Equipment(s) / Brief Summary of Deviation</u>	<u>Deviation Period time (am/pm) & date (mo/day/yr)</u>	<u>Date of Written Deviation Report to DOH (mo/day/yr)</u>
		Beginning: Ending:	

(Make Additional Copies if Needed)

**EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT
COVERED SOURCE PERMIT NO. 0625-01-C
PAGE 1 OF 2**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information semi-annually.

(Make Copies for Future Use)

Company name: _____

Facility name: _____

Equipment location: _____

Equipment description: _____

Serial/ID Number: _____

Pollutant Monitored: Opacity

From: Date: _____ Time: _____

To: Date: _____ Time: _____

Emission Limitation: _____

Date of Last CMS Certification/Audit: _____

Total Source Operating Time: _____

EMISSION DATA SUMMARY

1. Duration (Hours) of Excess Emissions in Reporting Period due to:

- a. Startup/Shutdown..... _____
- b. Cleaning/Soot Blowdown..... _____
- c. Control Equipment Failure..... _____
- d. Process Problems..... _____
- e. Other Known Causes..... _____
- f. Unknown Causes..... _____
- g. Fuel Problems..... _____
- Number of incidents of excess emissions..... _____

2. Total Duration of Excess Emissions..... _____

3. Total Duration of Excess Emissions..... _____
(% of Total Source Operating Time)

**EXCESS EMISSION AND MONITORING SYSTEM
PERFORMANCE SUMMARY REPORT
COVERED SOURCE PERMIT NO. 0625-01-C
(PAGE 2 OF 2)**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

(Make Copies for Future Use)

COMS PERFORMANCE SUMMARY

1. CMS Downtime (Hours) in Reporting Period Due to:
 - a. Monitor Equipment Malfunctions..... _____
 - b. Non-Monitor Equipment Malfunctions..... _____
 - c. Quality Assurance Calibration..... _____
 - d. Other Known Causes..... _____
 - e. Unknown Causes..... _____Number of incidents of monitor downtime..... _____
2. Total CMS Downtime..... _____
3. Total CMS Downtime..... _____
(% of Total Source Operating Time)

CERTIFICATION by Responsible Official

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Responsible Official (PRINT): _____

TITLE: _____

Responsible Official (Signature): _____

**ANNUAL EMISSIONS REPORT FORM: FUEL AND PRODUCTION
COVERED SOURCE PERMIT NO. 0625-01-C**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the nature and amounts of emissions.

(Make Copies for Future Use)

For Period: _____ Date: _____

Facility: **Tradewinds, Forest Products, LLC**

132.4 MMBTU/hr boiler manufactured by Factory, Sales, and Engineering, Inc.

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate, and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Responsible Official (print): _____ Title: _____

Responsible Official (signature): _____

Fuel Usage and Annual Capacity Factor: In Table 1, report on the quantity of each fuel used by the boiler and on the annual capacity factor for wood fuel and fuel oil no. 2.

Table 1: Boiler Fuel Usage and Annual Capacity Factor		
Fuel	Annual Usage	Annual Capacity Factor
Wood	(tons)	
Biodiesel S500	(gallons)	N/A
Biodiesel S15	(gallons)	N/A
Fuel Oil No. 2	(gallons)	

Veneer Sheet Annual Production: In Table 2, report on the quantity of veneer sheets produced during the calendar year.

Table 2: Veneer Sheet Annual Production (Msf, 3/8" basis)	
Veneer Sheets (Msf, 3/8" basis)	

**MONITORING REPORT FORM: BOILER HEAT INPUT, BOILER FUEL, AND BOILER AND VENEER DRYER ESP VOLTAGE
COVERED SOURCE PERMIT NO. 0625-01-C
(PAGE 1 OF 4)**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following information, semi-annually.

(Make Copies for Future Use)

For Period: _____ Date: _____

Facility: **Tradewinds, Forest Products, LLC - 132.4 MMBTU/hr boiler**

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate, and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.

Responsible Official (Print): _____ Title: _____

Responsible Official (Signature): _____

Wood Fuel Heat Input: Provide the wood fuel heat input limit of Special Condition D.5. In Table 1, report the total wood fuel heat input to the boiler on a monthly and rolling 12-month basis.

Wood fuel heat input limit of Special Condition D.5.: _____ MMBtu per rolling 12- month period

Table 1: Wood Fuel Heat Input					
Month	Monthly Basis	Rolling 12-Mo. Basis	Month	Monthly Basis	Rolling 12-Mo. Basis
Jan.			Jul.		
Feb.			Aug.		
Mar.			Sep.		
Apr.			Oct.		
May			Nov.		
Jun.			Dec.		

**MONITORING REPORT FORM: BOILER HEAT INPUT, BOILER FUEL, AND BOILER AND VENEER DRYER ESP VOLTAGE
COVERED SOURCE PERMIT NO. 0625-01-C
(PAGE 2 OF 4)**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

Fuel Oil No. 2 Fuel Usage: In Table 2 report the gallons of fuel oil no. 2 fired in the boiler for each month and each rolling 12-month period, and the fuel oil no. 2 limit adjusted according to the amount of biodiesel S500 fired during each rolling 12-month period.

Table 2: Fuel Oil No. 2 Usage (gallons)			Fuel Oil No. 2 Rolling 12-Mo. Limit (gallons)
Month	Monthly Basis	Rolling 12-Mo. Basis	
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

Fuel Oil No. 2 Sulfur and Nitrogen Content: In Table 3, report the highest sulfur and nitrogen content (percent by weight) of the fuel oil no. 2 used in the boiler for the reporting period.

Table 3: Fuel Oil No. 2 Constituents	
Constituent	Percent by Weight
Sulfur	
Nitrogen	

**MONITORING REPORT FORM: BOILER HEAT INPUT, BOILER FUEL, AND BOILER AND VENEER DRYER ESP VOLTAGE
COVERED SOURCE PERMIT NO. 0625-01-C
(PAGE 3 OF 4)**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

Biodiesel S500 Fuel Usage:

In Table 4, report the gallons of biodiesel S500 fired in the boiler for each month and each rolling 12-month period, and the biodiesel S500 limit adjusted according to the amount of fuel oil no. 2 fired during each rolling 12-month period.

Table 4: Biodiesel S500 Usage (gallons)			Biodiesel S500 Rolling 12-Mo. Limit (gallons)
Month	Monthly Basis	Rolling 12-Mo. Basis	
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

**VISIBLE EMISSIONS FORM REQUIREMENTS
STATE OF HAWAII
COVERED SOURCE PERMIT NO. 0625-01-C**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

The ***Visible Emissions (V.E.) Form*** shall be completed **monthly** (*each calendar month*) for each equipment subject to opacity limits in accordance with 40 CFR Part 60, Appendix A, Method 9 or use of a Ringelmann Chart as provided. At least **annually** (*calendar year*), V.E. observation shall be conducted for each equipment subject to opacity limits by a certified reader in accordance with Method 9. The V.E. Form shall be completed as follows:

1. Visible emissions observations shall take place during the day only and shall be compared to the Ringelmann Chart provided. The opacity shall be noted in five (5) percent increments (e.g., 25%).
2. Orient the sun within a 140 degree sector to your back. Provide a source layout sketch on the V.E. Form using the symbols as shown.
3. For V.E. observations of stacks, stand at least three (3) stack heights but not more than a quarter mile from the stack.
4. For V.E. observations of fugitive emissions from crushing and screening plants, stand at least 4.57 meters (15 feet) from the visible emissions source, but not more than a quarter mile from the visible emission source.
5. Two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals for each stack or emission point.
6. The six (6) minute average opacity reading shall be calculated for each observation.
7. If possible, the observations shall be performed as follows:
 - a. Read from where the line of sight is at right angles to the wind direction.
 - b. The line of sight shall not include more than one (1) plume at a time.
 - c. Read at the point in the plume with the greatest opacity (without condensed water vapor), ideally while the plume is no wider than the stack diameter.
 - d. Read the plume at fifteen (15) second intervals only. Do not read continuously.
 - e. The equipment shall be operating at the maximum permitted capacity.
8. If the equipment was shut-down for that period, briefly explain the reason for shut-down in the comment column.

The permittee shall retain the completed V.E. Forms for recordkeeping. These records shall be in a permanent form suitable for inspection, retained for a minimum of five years, and made available to the Department of Health, or their representative upon request.

Any required initial and annual performance test performed in accordance with Method 9 by a certified reader shall satisfy the respective equipment's V.E. monitoring requirements for the month the performance test is performed.

**VISIBLE EMISSIONS FORM
COVERED SOURCE PERMIT NO. 0625-01-C**

Issuance Date: October 3, 2008

Expiration Date: October 2, 2013

(Make Copies for Future Use for Each Stack or Emission Point)

Company Name: _____

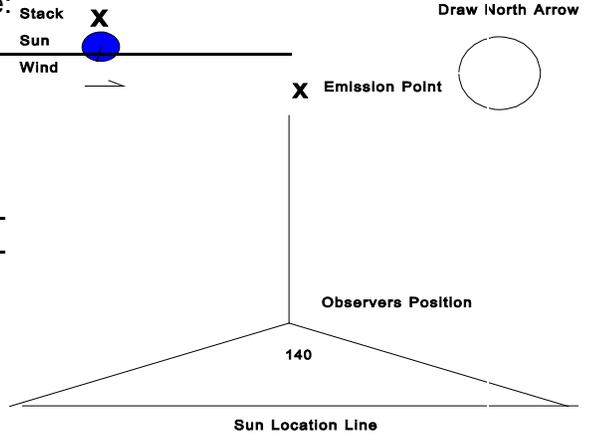
For stacks, describe equipment and fuel: _____

For fugitive emissions from crushers and screens, describe:

Fugitive emission point: _____

Plant Production (tons/hr): _____

(During observation)



Site Conditions:

Emission point or stack height above ground (ft): _____

Emission point or stack distance from observer (ft): _____

Emission color (black or white): _____

Sky conditions (% cloud cover): _____

Wind speed (mph): _____

Temperature (°F): _____

Observer Name: _____

Certified? (Yes/No): _____

Observation Date and Start Time: _____

Method of observation (Ringelmann Chart or Method 9): _____

MINUTES	Seconds				COMMENTS
	0	15	30	45	
1					
2					
3					
4					
5					
6					
Six (6) Minute Average Opacity Reading (%):					

Observation Date and Start Time: _____

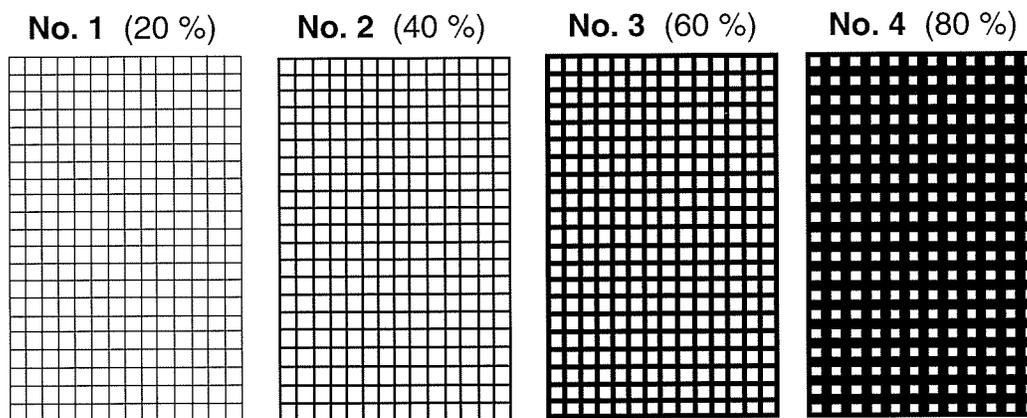
Method of observation (Ringelmann Chart or Method 9): _____

MINUTES	Seconds				COMMENTS
	0	15	30	45	
1					
2					
3					
4					
5					
6					
Six (6) Minute Average Opacity Reading (%):					

The Ringelmann Chart

In the late 1800's in Paris, France, Professor Maximilian Ringelmann developed the **Ringelmann Chart** to measure the combustion efficiency of coal-fired boilers. The shade of the smoke plume shows how well a boiler is operating - the poorer its combustion efficiency, the more unburned carbon particles in the smoke and the darker the plume.

Professor Ringelmann's chart established four measured shades of gray between white, valued at zero, and black, at five. These specific shades of gray, Ringelmann No. 1 to Ringelmann No. 4, can be accurately reproduced by placing a grid of black lines of a given width and spacing on a white background. Viewed from a distance, the grid lines and background merge into the shades of gray, to be compared to the shade of the smoke plume.



Ringelmann Chart (not to scale)

Regulating Visible Emissions

The Ringelmann Chart became one of the first tools used to measure visible emissions. Introduced into the United States in 1897, it was soon accepted as the standard measure of smoke density and was used by engineers for power plant testing and smokeless combustion studies. In 1910, the Chart was officially adopted as part of the Smoke Ordinance for Boston, Mass.

Many city, state, and federal regulations now set smoke density limits based on the Ringelmann Smoke Chart. Although not originally designed as a regulatory tool to control air pollution, it gives good practical results when used by well-trained observers.