

**CERTIFIED MAIL –  
RETURN RECEIPT REQUESTED**  
(#7014 3490 0001 8105 6119)

16-037E CAB  
File No. 0724-01

February 18, 2016

Mr. John G. Sylvia  
Chief Executive Officer  
Hu Honua Bioenergy, LLC  
Administration Office  
One Embarcadero Center, Suite 1320  
San Francisco, California 94111

Dear Mr. Sylvia:

**SUBJECT: Amendment of Covered Source Permit (CSP) No. 0724-01-C  
Significant Modification  
Hu Honua Bioenergy, LLC  
Bioenergy Facility  
Located At: 28-283 Sugar Mill Road, Pepeekeo, Hawaii  
Date of Expiration: August 30, 2016**

In accordance with Hawaii Administrative Rules, Chapter 11-60.1 and 40 CFR §70.7(g)(4), and pursuant to EPA's *Order Granting in Part and Denying in Part Petition for Objection to Permit* for Petition No. IX-2011-1, the Department of Health hereby amends Covered Source Permit (CSP) No. 0724-01-C issued to Hu Honua Bioenergy, LLC. The amendment incorporates additional requirements to include the boiler's emissions during periods of malfunction or upset conditions and the emergency biodiesel engine generator's emissions when calculating the total emissions of carbon monoxide (CO), nitrogen oxide (NO<sub>x</sub>), and hazardous air pollutants (HAPs). It also includes the methodology for calculating the total emissions of CO, NO<sub>x</sub>, and HAPs for recordkeeping and reporting purposes. Accordingly, the applicable annual emissions and monitoring report forms are also revised.

Items nos. 1 through 10 list permit conditions that amend and supersede the corresponding permit conditions of CSP No. 0724-01-C issued on August 31, 2011.

1. Attachment II, Special Condition No. C.6:

6. The CO and NO<sub>x</sub> emissions from the facility, including during periods of boiler startups, shutdowns, and malfunction or upset conditions, shall not equal or exceed 250 tons per year, on any rolling twelve-month (12-month) period. CO and NO<sub>x</sub> emissions from the 836 kW emergency biodiesel engine generator shall also be included in the CO and NO<sub>x</sub> emissions from the facility.

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

2. Attachment II, Special Condition No. C.7:

7. The total of all HAPs emissions and any individual HAP emissions from the facility, including during periods of boiler startups, shutdowns, and malfunction or upset conditions, shall not equal or exceed 25 tons per year and 10 tons per year, respectively, on any rolling twelve-month (12-month) period. HAPs emissions from the 836 kW emergency biodiesel engine generator shall also be included in the HAPs emissions from the facility.

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

3. Attachment II, Special Condition No. D.1.c.i:

- i. Biodiesel (S15) usage during startup shall not exceed a maximum of 11,880 gallons per any rolling twelve-month (12-month) period.

4. Attachment II, Special Condition No. D.1.d:

d. Boiler Startup and Shutdown

- i. The definition of startup shall be as defined in 40 CFR Part 63, Subpart JJJJJJ.
- ii. During startup, only biodiesel (S15) shall be used prior to the operating temperature of the superheater reaching 750 °F. When the superheater reaches 750 °F, operation of the air pollution control equipment shall commence. Wood can only be burned during startup after all the air pollution control equipment is operating according to the manufacturer's specifications.
- iii. The period when only wood is burned during startup shall not exceed three (3) hours.
- iv. The permittee shall minimize startup and shutdown periods per the manufacturer's recommended procedures.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, 40 CFR §63.11214)<sup>1</sup>

5. Attachment II, Special Condition No. E.14:

14. The permittee shall calculate and record the CO and NO<sub>x</sub> emissions from the facility, including during periods of boiler startups, shutdowns, and malfunction or upset conditions, on a monthly and rolling twelve-month (12-month) basis to demonstrate compliance with Attachment II, Special Condition No. C.6. CO and NO<sub>x</sub> emissions from the 836 kW emergency biodiesel engine generator shall also be included in the CO and NO<sub>x</sub> emissions from the facility.

- a. The permittee shall use data from the boiler's CO and NO<sub>x</sub> CEMS required by Attachment II, Special Conditions Nos. E.8 and E.9, using the following procedures:

- i. The permittee shall use the data conversion procedures for SO<sub>2</sub> in 40 CFR Part 75, Appendix F, modified to account for the difference in molecular weight between CO and SO<sub>2</sub>, and the missing data substitution procedures for SO<sub>2</sub> in 40 CFR Part 75, Subpart D, modified to account for the difference in molecular weight between CO and SO<sub>2</sub>, to determine the hourly mass emission rate of CO from the boiler during all boiler operating hours.
  - ii. The permittee shall use the data conversion procedures in 40 CFR Part 75, Appendix F and the missing data substitution procedures for NO<sub>x</sub> in 40 CFR Part 75, Subpart D, to determine the hourly mass emission rate of NO<sub>x</sub> from the boiler during all boiler operating hours;
- b. The 836 kW emergency biodiesel engine generator's CO and NO<sub>x</sub> emissions shall be calculated using the following equation:

$$\text{Emission factor (lb/MMBtu)} \times \text{Higher Heating Value (MMBtu/gallon)} \times \text{Fuel Consumption (gallons/rolling 12-month period)}$$

The CO and NO<sub>x</sub> emission factors shall be based on data from the manufacturer, AP-42, or other data with prior written approval by the Department of Health. The biodiesel HHV shall be from the facility's biodiesel vendor, or other data with prior written approval by the Department of Health. The fuel consumption of biodiesel (gallons/rolling 12-month period) shall be based on the hour meter reading (hours/rolling 12-month period) and fuel consumption rate (gallons/hour) at the maximum load as specified by the manufacturer.

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

6. Attachment II, Special Condition No. E.15:

15. The permittee shall calculate and record the total of all HAPs emissions and all individual HAP emissions as identified in AP-42 from the facility, including during periods of boiler startups, shutdowns, and malfunction or upset conditions, on a monthly and rolling twelve-month (12-month) basis to demonstrate compliance with Attachment II, Special Condition No. C.7. HAPs emissions from the 836 kW emergency biodiesel engine generator shall also be included in the HAPs emissions from the facility.
  - a. The permittee shall use data from the boiler's HCl CEMS required by Attachment II, Special Conditions No. E.7. The permittee shall use the data conversion procedures for SO<sub>2</sub> in 40 CFR Part 75, Appendix F, modified to account for the difference in molecular weight between HCl and SO<sub>2</sub>, and the missing data substitution procedures for SO<sub>2</sub> in 40 CFR Part 75, Subpart D, modified to account for the difference in molecular weight between HCl and SO<sub>2</sub>, to determine the hourly mass emission rate of HCl from the boiler during all boiler operating hours.

- b. The permittee shall use data from the boiler's source performance test for chlorine, acetaldehyde, acrolein, benzene, dichloromethane, formaldehyde, manganese, naphthalene, styrene, and toluene to calculate HAPs emissions. All other HAPs emissions as identified in AP-42 for the boiler shall be calculated using data from the sources listed in Appendix C of Hu Honua's December 2010 application or other data with prior written approval by the Department of Health.
- c. The boiler's HAPs emissions (not including HCL) shall be calculated based on the following:
  - i. When using source performance test results, Section 4.3 of US EPA's Emission Inventory Improvement Program (EIIP), Volume 2, Chapter 2, "Preferred and Alternative Methods for Estimating Air Emissions from Boilers" (January 2001).
  - ii. When using source performance test results, the F factor (Fd) required in Section 4.1 and 4.3 for burning wood shall be derived using Equation 2.4-3 of the EIIP document. The high heating value (HHV) and hydrogen, carbon, sulfur, nitrogen, and oxygen content for the wood needed for this equation shall be derived from the wood sampling conducted per Attachment II, Special Condition No. E.2.c.iii.
  - iii. HAP emission estimates not from CEMS or source performance test results shall follow the approach contained in Section 5 of US EPA's Emission Inventory Improvement Program (EIIP), Volume 2, Chapter 2, "Preferred and Alternative Methods for Estimating Air Emissions from Boilers" (January 2001). The emission factors shall be based on data sources listed in Appendix C on Hu Honua's December 2010 application or other data with prior written approval by the Department of Health. The wood HHV shall be derived from the wood sampling conducted per Attachment II, Special Condition No. E.2.c.iii. The biodiesel HHV shall be from the facility's biodiesel vendor, or other data with prior written approval by the Department of Health.
  - iv. Good engineering practices shall be used to estimate HAPs emissions during malfunctions, or other methods with prior written approval by the Department of Health.
- d. The following equation shall be used to calculate the boiler's HAPs emissions where CEMS or source performance test data is not available:

Emission factor (lb/MMBtu) x Higher Heating Value (MMBtu/lbs of wood or MMBtu/gallons of biodiesel) x Fuel Consumption (lbs of wood/rolling 12-month period or gallons of biodiesel/rolling 12-month period)

The wood HHV shall be from the wood sampling and analysis conducted per Attachment II, Special Condition No. E.2.c.iii for wood fuel. The biodiesel HHV shall be from the facility's biodiesel vendor, or other data with prior written approval by the Department of Health.

- e. The following equation shall be used to calculate the 836 kW biodiesel emergency generator's HAPs emissions:

$$\text{Emission factor (lb/MMBtu)} \times \text{Higher Heating Value (MMBtu/gallon)} \times \text{Fuel Consumption (gallons/rolling 12-month period)}$$

Emission factors for HAPs shall be from one or more of the following sources:

- i. AP-42 data; and
- ii. Other data with prior written approval by the Department of Health.

The biodiesel HHV shall be from the facility's biodiesel vendor, or other data with prior written approval by the Department of Health. The fuel consumption of biodiesel (gallons/rolling 12-month period) shall be based on the hour meter reading (hours/rolling 12-month period) and fuel consumption rate (gallons/hour) at the maximum load as specified by the manufacturer.

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

7. Attachment II, Special Condition No. F.6.a.vi:

- vi. The CO and NO<sub>x</sub> emissions from the facility on a monthly and rolling twelve-month (12-month) basis to demonstrate compliance with Attachment II, Special Condition No. C.6. Facility emissions shall include emissions during periods of boiler startups, shutdowns, and malfunction or upset conditions; and emissions from the 836 kW emergency biodiesel engine generator;

8. Attachment II, Special Condition No. F.6.a.vii:

- vii. The total of all HAPs emissions and the largest individual HAP emissions from the facility on a monthly and rolling twelve-month (12-month) basis to demonstrate compliance with Attachment II, Special Condition No. C.7. Facility emissions shall include emissions during periods of boiler startups, shutdowns, and malfunction or upset conditions; and emissions from the 836 kW emergency biodiesel engine generator; and

9. Attachment II, Special Condition No. G.1.c:

- c. Chlorine, Acetaldehyde, Acrolein, Benzene, Dichloromethane, Formaldehyde, Manganese, Naphthalene, Styrene, and Toluene Emissions
  - i. Within **sixty (60) days** after achieving the maximum production rate of the boiler, 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 Chlorine, Acetaldehyde, Acrolein, Benzene, Dichloromethane, Formaldehyde,

Manganese, Naphthalene, Styrene, and Toluene Emissions in lb/MMBtu and lb/hr. The source test for Chlorine, Acetaldehyde, Acrolein, Benzene, Dichloromethane, Formaldehyde, Manganese, Naphthalene, Styrene, and Toluene emissions shall be performed with the boiler firing wood fuel.

- ii. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction.
- iii. The annual performance test may be waived for up to two (2) consecutive years if the last test results show a compliance margin of at least ten (10) percent of assumed emission factor in the permit review summary.

(Auth.: HAR §11-60.1-173)

10. Attachment II, Special Condition No. G.2:

2. Boiler Test Methods

Performance tests for CO, NO<sub>x</sub>, SO<sub>2</sub>, VOC, PM/PM<sub>10</sub>, HCl, opacity of visible emissions, NH<sub>3</sub>, Chlorine, Acetaldehyde, Acrolein, Benzene, Dichloromethane, Formaldehyde, Manganese, Naphthalene, Styrene, and Toluene shall be conducted and the results reported in accordance with test methods set forth in 40 CFR §60.8, 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M. 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 approval by the Department of Health shall be used:

- a. Performance tests for CO emissions shall be conducted using EPA Methods 1-4, 10, and 19;
- b. Performance tests for NO<sub>x</sub> emissions shall be conducted using EPA Methods 1-4, 7E, and 19;
- c. Performance tests for SO<sub>2</sub> emissions shall be conducted using EPA Methods 1-4 and 6 or 6c;
- d. Performance tests for VOC emissions shall be conducted using EPA Methods 1-4 and 25;
- e. Performance tests for PM/PM<sub>10</sub> emissions shall be conducted as provided under Attachment II, Special Condition No. G.3;
- f. Performance tests for HCl and Chlorine emissions shall be conducted using EPA Methods 1-4 and Method 26 or 26A;
- g. During the initial performance test, compliance with the opacity standard of Attachment II, Special Condition No. C.4, shall be determined in accordance with 40 CFR §60.46b(d)(7) and §63.11224(e)(2). The permittee shall record COMS 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 and §63.7 performance test results;
- h. During the annual performance tests, compliance with the opacity standard of Attachment II, Special Condition No. C.4 shall be determined with COMS data collection in accordance with 40 CFR §60.11(e)(5);

- i. Performance tests for NH<sub>3</sub> emissions shall be conducted using EPA Conditional Test Method 027 (CTM-027);
- j. Performance tests for Acetaldehyde, Acrolein, Benzene, Dichloromethane, Formaldehyde, Naphthalene, Styrene, and Toluene shall be conducted using EPA Method 320;
- k. Performance test for Manganese shall be conducted using EPA Method 29; and
- l. The performance tests 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, §11-60.1-173, 40 CFR Part 60 Appendix A, §60.8, §60.46b, §63.7, §63.11224(e)(2))<sup>1</sup>

11. Added Attachment II, Special Condition No. E.2.d.iii:

- iii. Compliance with the boiler's total heat input limits specified in Attachment II, Special Condition No. D.1.a.iii when firing biodiesel shall be calculated using the following equation:

Higher Heating Value (MMBtu/gallon) x Fuel Consumption  
(gallons/rolling 12-month period)

12. Added Attachment II, Special Condition No. F.6.a.viii:

- viii. Supporting documents (i.e., source of emission factors and copies of the source documents) and calculations showing the basis of the emissions for Attachment II, Special Condition Nos. F.6.a.vi and F.6.a.vii.
13. The enclosed Attachment II-INSIG shall supersede in its entirety the corresponding Attachment II-INSIG issued with CSP No. 0724-01-C on August 31, 2011.
14. The enclosed *Annual Emissions Report Form: Fuel and Production* shall supersede in its entirety the corresponding *Annual Emissions Report Form: Fuel and Production* issued with CSP No. 0724-01-C on August 31, 2011.
15. The enclosed *Monitoring Report Form: Boiler Fuel, ESP and Baghouse, Emission Caps* shall supersede in its entirety the corresponding *Monitoring Report Form: Boiler Fuel, ESP and Baghouse, Emission Caps* issued with CSP No. 0724-01-C on August 31, 2011.

Mr. John G. Sylvia  
February 18, 2016  
Page 8

If there are any questions regarding these matters, please contact Mr. Darin Lum of the Clean Air Branch at (808) 586-4200.

Sincerely,

STUART YAMADA, P.E., CHIEF  
Environmental Management Division

DL:rk

Enclosures

c: CAB Monitoring Section



**ATTACHMENT II - INSIG  
SPECIAL CONDITIONS - INSIGNIFICANT ACTIVITIES  
COVERED SOURCE PERMIT NO. 0724-01-C**

**Amended Date: February 18, 2016**

**Expiration Date: August 30, 2016**

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, including the following:

One (1) 836 kW emergency biodiesel engine generator, Detroit Diesel, 12V-2000 G60.

(Auth.: HAR §11-60.1-3)

**Section B. Operational Limitations**

1. The 836 kW emergency biodiesel engine generator shall only be fired on biodiesel (S15).
2. 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)

3. 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 permittee shall install, operate and maintain a non-resetting hour meter on the 836 kW emergency biodiesel engine generator for the continuous and permanent recording of the total hours of operation of the engines for the purpose of showing compliance with Attachment II, Special Condition Nos. C.6 and C.7.

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

2. The non-resetting meter shall not allow the manual resetting or other manual adjustments of the meter readings. The installation of any new non-resetting meters or the replacement of any existing non-resetting meters shall be designed to accommodate a minimum of

five (5) years of equipment operation, considering any operational limitations, before the meter returns to a zero reading.

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

3. The permittee shall keep records of the total hours of operation of the 836 kW emergency biodiesel engine generator on a monthly and rolling 12-month basis to demonstrate compliance with Attachment II, Special Condition Nos. C.6 and C.7. Monthly records shall include:
  - i. Date of meter reading;
  - ii. Meter reading at the beginning of each month;
  - iii. Total hours of operation for each month; and
  - iv. Total hours of operation on a rolling 12-month basis.

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

4. 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)

5. 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 **sixty (60) 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)

#### **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)

**ANNUAL EMISSIONS REPORT FORM: FUEL AND PRODUCTION  
COVERED SOURCE PERMIT NO. 0724-01-C**

**Amended Date:** February 18, 2016

**Expiration Date:** August 30, 2016

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: \_\_\_\_\_

**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.

Table 1: Boiler Fuel Usage and Annual Capacity Factor		
Fuel	Annual Usage	Annual Capacity Factor
Wood	(tons)	
Biodiesel (S15)	(gallons)	N/A

**Fuel Usage:** In Table 2, report on the quantity of fuel used by the 836 kW emergency biodiesel engine generator.

Table 2: 836 kW Emergency Biodiesel Engine Generator	
Fuel	Annual Usage
Biodiesel (S15)	(gallons)

**MONITORING REPORT FORM: BOILER FUEL, ESP AND BAGHOUSE,  
EMISSION CAPS  
COVERED SOURCE PERMIT NO. 0724-01-C  
(PAGE 1 OF 5)**

**Amended Date: February 18, 2016**

**Expiration Date: August 30, 2016**

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: \_\_\_\_\_

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): \_\_\_\_\_

**Biodiesel (S15) Fuel Usage During Startup:**

Table 1: Biodiesel Usage		
Month	Monthly Basis (gallons)	Rolling 12-Mo. Basis (gallons)
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

**MONITORING REPORT FORM: BOILER FUEL, ESP AND BAGHOUSE,  
EMISSION CAPS  
COVERED SOURCE PERMIT NO. 0724-01-C  
(PAGE 2 OF 5)**

**Amended Date:** February 18, 2016

**Expiration Date:** August 30, 2016

**Treated Wood:** In Table 2, report on any instances where treated wood was fired in the boiler during the reporting period. Include instances where wood fired was painted or chemically treated. If no such incidents occurred, state so below.

Table 2: Treated Wood Fuel		
Date	Type of Treated Wood	Quantity Fired

Table 3: ESP Operating Voltage Below Normal			
Date	Start Time	End Time	Corrective Action Taken

Table 4: Baghouse Pressure Drop Above Normal			
Date	Start Time	End Time	Corrective Action Taken

**MONITORING REPORT FORM: BOILER FUEL, ESP AND BAGHOUSE,  
EMISSION CAPS  
COVERED SOURCE PERMIT NO. 0724-01-C  
(PAGE 3 OF 5)**

**Amended Date: February 18, 2016**

**Expiration Date: August 30, 2016**

**Biodiesel (S15) and Wood Heat Input:**

Table 5: Biodiesel and Wood Heat Input				
Month	Biodiesel Heat Input, Monthly Basis (MMBtu)	Wood Heat Input, Monthly Basis (MMBtu)	Total Biodiesel and Wood Heat Input, Monthly Basis (MMBtu)	Total Biodiesel and Wood Heat Input, Rolling 12-Mo. Basis (MMBtu)
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

**MONITORING REPORT FORM: BOILER FUEL, ESP AND BAGHOUSE,  
EMISSION CAPS  
COVERED SOURCE PERMIT NO. 0724-01-C  
(PAGE 4 OF 5)**

**Amended Date: February 18, 2016**

**Expiration Date: August 30, 2016**

**CO and NO<sub>x</sub> Facility Emissions:**

Facility emissions shall include emissions during periods of boiler startups, shutdowns, and malfunction or upset conditions; and emissions from the 836 kW emergency biodiesel engine generator.

Table 5: <u>CO and NO<sub>x</sub> Emissions</u>				
Month	CO Emissions, Monthly Basis (tpy)	CO Emissions, Rolling 12-Mo. Basis (tpy)	NO <sub>x</sub> Emissions, Monthly Basis (tpy)	NO <sub>x</sub> Emissions, Rolling 12-Mo. Basis (tpy)
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				



**MONITORING REPORT FORM: BOILER FUEL, ESP AND BAGHOUSE,  
EMISSION CAPS  
COVERED SOURCE PERMIT NO. 0724-01-C  
(PAGE 5 OF 5)**

**Amended Date: February 18, 2016**

**Expiration Date: August 30, 2016**

**HAPs Facility Emissions:**

Facility emissions shall include emissions during periods of boiler startups, shutdowns, and malfunction or upset conditions; and emissions from the 836 kW emergency biodiesel engine generator.

<b>Table 6: <u>HAPs Emissions</u></b>				
<b>Month</b>	<b>Total HAPs Emissions, Monthly Basis (tpy)</b>	<b>Total HAPs Emissions, Rolling 12-Mo. Basis (tpy)</b>	<b>Largest Individual HAP Emissions, Monthly Basis (tpy)</b>	<b>Largest Individual HAP Emissions, Rolling 12-Mo. Basis (tpy)</b>
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

Largest Individual HAP \_\_\_\_\_