AIR QUALITY PERMIT

Permit No.
4911-119-0025-E-04-0

Effective Date
August 27, 2015

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Rules, Chapter 391-3-1, adopted pursuant to and in effect under that Act,

Facility Name: **GRP Franklin Renewable Energy Facility**

Mailing Address: 3465 Highway 198
Carnesville, Georgia 30521

is issued a Permit for the following:

Construction and operation of a 79 MW steam-turbine generator powered by steam from a 920.5 MMBtu/hr boiler (Source Code: B001) firing a combination of clean cellulosic biomass from clean construction and demolition wood, and small quantities of propane during startup and bed stabilization only; ancillary equipment includes a 450-kW emergency generator, a 125-hp fire pump, storage tanks and a cooling tower.

Facility Location: 3465 Highway 198
Carnesville, Georgia 30521 (Franklin County)

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit.

This Permit may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 23292 dated May 22, 2015 (updated June 25, 2015); any other applications upon which this Permit is based; supporting data entered therein or attached thereto; or any subsequent submittals or supporting data; or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **22** pages.

[Signed]
Director
Environmental Protection Division

LIST OF EMISSION UNITS

Emission Units		Air Pollution Control Devices	
ID No.	Description	ID No.	Description
B001	Wood biomass fired bubbling fluidized bed boiler with a heat input capacity of 920.5 MMBtu/hr	BAG1 SCR1 DSI	Baghouse Selective Catalytic Reduction System Dry Sorbent Injection (optional)
EG1	450-kW Diesel-fired emergency generator	NA	NA
FP1	125 hp fire pump engine	NA	NA
CT1	Counter-flow mechanical draft cooling tower	DE	Drift Eliminators
AM1	10,000 gallons aqueous ammonia storage tank	NA	NA
AS1	Fly ash storage silo (approximately 7,700 ft^3)	NA	NA
SO1	Sorbent storage silo (approximately 7,700 ft^3)	NA	NA
SA1	Sand storage silo	NA	NA

1. General Requirements

1.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate this source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection or surveillance of the source.

1.2 The Permittee shall not build, erect, install or use any article, machine, equipment or process the use of which conceals an emission which would otherwise constitute a violation of an applicable emission standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged into the atmosphere.

1.3 The Permittee shall submit a Georgia Air Quality Permit application to the Division prior to the commencement of any modification, as defined in 391-3-1-.01(pp), which may result in air pollution and which is not exempt under 391-3-1-.03(6). Such application shall be submitted sufficiently in advance of any critical date involved to allow adequate time for review, discussion, or revision of plans, if necessary. The application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity and pollutant emission rates of the plant before and after the change, and the anticipated completion date of the change.

1.4 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and shall be retained for at least five (5) years following the date of entry.

1.5 In cases where conditions of this Permit conflict with each other for any particular source or operation, the most stringent condition shall prevail.

2. Allowable Emissions

2.1 The Permittee shall not discharge or cause the discharge into the atmosphere, from the entire facility, emissions of nitrogen oxides (NOx) or carbon monoxide (CO) in an amount exceeding 249 tons during any twelve consecutive months.
[Avoidance of 40 CFR 52.21]

2.2 The Permittee shall not discharge or cause the discharge into the atmosphere from the entire facility any single hazardous air pollutant which is listed in Section 112 of the Clean Air Act, in an amount equal to or exceeding 10 tons during any twelve consecutive months, or any combination of such listed pollutants in an amount equal to or exceeding 25 tons during any twelve consecutive months.
[Avoidance of 40 CFR 63 and 391-3-1-.03(2)(c)]

Biomass Boiler

2.3 The Permittee shall comply with all applicable provisions of the "New Source Performance Standards" as found in 40 CFR 60, Subpart A, "General Provisions" and 40 CFR 60, Subpart Db, "Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units" for the operation of the boiler (Source Code: B001).
[40 CFR 60, Subparts A and Db]

2.4 The Permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as found in 40 CFR 63, in Subpart A – "General Provisions," and Subpart JJJJJJ – "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources" for the operation of the boiler (Source Code: B001).
[40 CFR 63, Subparts A and JJJJJJ]

2.5 The Permittee shall only fire clean cellulosic biomass which may include clean construction and demolition wood in the boiler (Source Code: B001) as defined in Condition 2.9 and 40 CFR 241. The Permittee shall only fire propane fuel in the boiler (Source Code: B001) during startup and bed stabilization.
[391-3-1-.03(2)(c); 40 CFR 63.11200(b) and 40 CFR 241.2]

2.6 The Permittee shall not discharge or cause the discharge into the atmosphere from the boiler (Source Code: B001) emissions that:

a. Contain particulate matter in excess of 0.03 pounds per million BTU heat input. This particulate matter standard shall apply at all times except periods of startup and shutdown.
[40 CFR 63.11201(a) and Table 1 (Row 3) of 40 CFR 63, Subpart JJJJJJ; 40 CFR 60.43b(h)(1); Avoidance of 40 CFR 52.21; 391-3-1-.02(2)(d)2.(iii) subsumed]

b. Exhibit greater than 10 percent opacity on a daily block average as measured by the COMS described in Condition 5.3. This standard shall apply at all times, except period of startup and shutdown.
[40 CFR 63.11201(c) and Table 3 of 40 CFR 63, Subpart JJJJJJ; 40 CFR 60.43b(f) subsumed; 391-3-1-.02(2)(d)3. subsumed]

2.7 The Permittee shall not burn propane fuel containing more than 0.30 percent sulfur, by weight or that, when combusted without SO_2 emission control, has an SO_2 emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input, in the boiler (Source Code: B001).
[40 CFR 60.42b(k)(2) SO_2 limit Avoidance and 391-3-1-.02(2)(g)2. subsumed]

2.8 The Permittee shall not combust more than 1,301,000 gallons of propane fuel in the boiler (Source Code: B001) during any 12 consecutive month period.
[40 CFR 60.44b(l)(1) NOx limit Avoidance]

2.9 For the purposes of this Permit: Clean cellulosic biomass means those residuals that are akin to traditional cellulosic biomass, including, but not limited to: Agricultural and forest-derived biomass (e.g., green wood, forest thinnings, clean and unadulterated bark, sawdust, trim, tree harvesting residuals from logging and sawmill materials, hogged fuel, wood pellets, untreated wood pallets); urban wood (e.g., tree trimmings, stumps, and related forest-derived biomass from urban settings); corn stover and other biomass crops used specifically for the production of cellulosic biofuels (e.g., energy cane, other fast growing grasses, byproducts of ethanol natural fermentation processes); bagasse and other crop residues (e.g., peanut shells, vines, orchard trees, hulls, seeds, spent grains, cotton byproducts, corn and peanut production residues, rice milling and grain elevator operation residues); wood collected from forest fire clearance activities, trees and clean wood found in disaster debris, clean biomass from land clearing operations, and **clean construction and demolition wood**.

These fuels are not secondary materials or solid wastes unless discarded. Clean biomass is biomass that does not contain contaminants at concentrations not normally associated with virgin biomass materials.

Any wood that has been treated with compounds such as chromate copper arsenate or co-mingled with such compounds or lead is not considered clean cellulosic biomass.
[391-3-1-.03(2)(c) and 40 CFR 241.2]

Emergency Generator & Fire Pump Engine

2.10 The Permittee shall limit the generator (Source Code: EG1) and the fire pump engine (Source Code: FP1) to emergency standby operation only and shall operate the generator less than 500 hours during any consecutive twelve-month period. This generator shall be operated only in the event of power loss from the local grid (emergency standby mode) or for maintenance and testing.
[391-3-1-.03(6)(b)11.(v)]

2.11 The Permittee shall not cause, let, suffer, permit or allow emissions from the emergency generator (Source Code: EG1) and the fire pump engine (Source Code: FP1) the opacity of which is equal to or greater than forty (40) percent opacity.
[391-3-1-.02(2)(b)1]

2.12 The Permittee shall fire the fire pump engine (Source Code: FP1) with distillate fuel oil that has a maximum sulfur content of 0.05 percent sulfur, by weight.
[391-3-1-.03(2)(c) and 391-3-1-.02(2)(g)2 subsumed]

2.13 The Permittee shall comply with all applicable provisions of 40 CFR 60 New Source Performance Standards (NSPS), Subpart A "General Provisions" and Subpart IIII – "Standards for Stationary Compression Ignition Internal Combustion Engines", for the operation of the emergency generator (Source Code: EG1).
[40 CFR 60.4204, 40 CFR 60.4205(b) and 40 CFR 60.4206]

2.14 The Permittee shall fire the emergency generator (Source Code: EG1) with distillate fuel oil that has a maximum sulfur content of 15 ppm (0.0015% by weight) and either a minimum cetane index of 40 or maximum aromatic content of 35 volume percent.
[40 CFR 60.4207, 40 CFR 80.510(b), and 391-3-1-.02(2)(g) (subsumed)]

2.15 The accumulated non-emergency service (maintenance check and readiness testing) time for the emergency generator (Source Code: EG1) and the fire pump engine (Source Code: FP1) shall not exceed 100 hours per year per engine. Any operation other than emergency operation, maintenance check and readiness testing is prohibited.
[40 CFR 60.4211(f) and 40 CFR 63.6640(f)]

2.16 The Permittee shall comply with the 40 CFR 63, Subpart A "General Provisions" and 40 CFR 63, Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [RICE]" for operation of the emergency generator (Source Code: EG1) and the fire pump engine (Source Code: FP1).
[40 CFR 63, Subparts A and ZZZZ]

Material Handling & Cooling Tower

2.17 The Permittee shall not cause, let, suffer, permit or allow emissions from the storage silos (Source Codes: AS1, SO1, and SA1) the opacity of which is equal to or greater than forty (40) percent.
[391-3-1-.02 (2)(b)1]

2.18 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the storage silos (Source Codes: AS1, SO1, and SA1) and the cooling tower (Source Code: CT1) any gases which contain particulate matter in excess of the rate derived from the equation noted below:
[391-3-1-.02 (2)(e)(1)]

a. For process input weight rate up to and including 30 tons per hour:

$E = 4.1P^{0.67}$; or

b. For process input weight rate above 30 tons per hour:

$E = 55P^{0.11} - 40$

Where E equals the allowable PM emission rate in pounds per hour and P equals the total dry process input weight rate in tons per hour.

3. Fugitive Emissions

3.1 The Permittee shall take all reasonable precautions with any operation, process, handling, transportation, or storage facilities to prevent fugitive emissions of air contaminants.
[391-3-1-.02(2)(n)1]

3.2 The Permittee shall comply with Georgia Air Quality Control Rules 391-3-1-.02(2)(n), "Fugitive Dust", for the entire processing facility including all roadways and processing equipment not otherwise subject to any other rule or regulation governing fugitive visible emissions. Subject to this rule, the Permittee shall not cause, let, permit, suffer or allow visible emissions from any fugitive source to equal or exceed 20 percent opacity.
[391-3-1-.02(2)(n)2]

4. Process & Control Equipment

4.1 Routine maintenance shall be performed on all pollution control equipment. Maintenance records shall be recorded in a permanent form suitable and available for inspection by the Division. The record shall be retained for at least five years following the date of such maintenance.
[391-3-1-.02(6)(b)1]

4.2 The emergency generator (Source Code: EG1) and its control devices shall be installed and configured according to the specifications and instructions provided by the manufacturers.
[40 CFR 60.4211(b)]

4.3 The emergency generator (Source Code: EG1) shall be operated and maintained according to the manufacturer's written specifications/instructions or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine.
[40 CFR 60.4211(a)]

4.4 The Permittee shall operate the selective catalytic reduction system (Control Device ID No.: SCR1) and baghouse (Control Device ID No.: BAG1) at all times that the boiler (Source Code: B001) is in operation except during periods of startup.
[391-3-1-.03(2)(c)]

4.5 If dry sorbent injection is used to comply with Condition 2.2, the Permittee shall operate the dry sorbent injection system (Control Device ID No.: DSI) at all times that the boiler (Source Code: B001) is in operation except during periods of startup. The Permittee shall establish a minimum sorbent injection rate.

The minimum sorbent injection rate means the load fraction multiplied by the lowest hourly average sorbent injection rate measured during the most recent performance stack test demonstrating compliance with Condition 2.2.
[391-3-1-.03(2)(c)]

5. Monitoring

5.1 Any continuous monitoring system required by the Division and installed by the Permittee shall be in continuous operation and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Monitoring system response, relating only to calibration checks and zero and span adjustments, shall be measured and recorded during such periods. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service.
[391-3-1-.02(6)(b)1]

5.2 The Permittee shall install, calibrate, maintain, and operate a system to continuously monitor and record the indicated pollutants on the following equipment. Each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[391-3-1-.02(6)(b)1, 40 CFR 60.48b, and Avoidance of 40 CFR 52.21]

a. A Continuous Emissions Rate Monitoring System (CERMS) for measuring NOx emissions discharged to the atmosphere from the boiler (Source Code: B001). The 1-hour average NOx emissions rates shall also be recorded in pounds per hour.

b. A Continuous Emissions Rate Monitoring System (CERMS) for measuring CO discharged to the atmosphere from the boiler (Source Code: B001). The 1-hour average CO emissions rates shall also be recorded in pounds per hour.

c. A Continuous Emissions Rate Monitoring System (CERMS) for measuring SO_2 emissions discharged to the atmosphere from the boiler (Source Code: B001). The 1-hour average SO_2 emissions rates shall also be recorded in pounds per hour.

d. A Continuous Emissions Rate Monitoring System (CERMS) for measuring CO_2 emissions discharged to the atmosphere from the boiler (Source Code: B001). The 1-hour average CO_2 emissions rates shall also be recorded in pounds per hour.

e. A Continuous Opacity Monitoring System (COMS) for measuring opacity discharged to the atmosphere from the boiler (Source Code: B001).

f. For the purpose of this permit, a valid hour of emissions data means any 60-minute period commencing on the hour and it must be based on at least 30 minutes of operation and include at least 2 data points representing two 15-minute periods. And in accordance with Section 1.4 of the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants**.

g. At a minimum, the Permittee shall obtain valid 1-hour NOx, CO, SO_2 and CO_2 emission data for at least 75 percent of all operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. The 1-hour averages are calculated using the data points required in Section 1.4 of the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants**. If this minimum data requirement cannot be met with a CERMS, the owner or operator shall supplement emission data with other monitoring systems approved by the Director or the reference methods and procedures described in Condition 6.2.

h. The Permittee shall, using the procedures of Appendix F, Procedure 1 (Quality Assurance Requirements for Gas Continuous Emissions Monitoring Systems Used for Compliance Determination) contained in the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants**, assess the quality and accuracy of the data acquired by the (CERMS) required by Condition 5.2a., b, c and d.

5.3 The Permittee shall install, operate, certify and maintain the Continuous Opacity Monitoring System (COMS) from the boiler (Source Code: B001) according to the procedures as specified in 40 CFR 63.11224(e).
[40 CFR 63.11224(e)]

a. Each COMS must be installed, operated, and maintained according to Performance Specification 1 of 40 CFR 60, Appendix B.

b. The Permittee must conduct a performance evaluation of each COMS according to the requirements in 40 CFR 63.8 and according to Performance Specification 1 of 40 CFR 60, Appendix B.

c. As specified in 40 CFR 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

d. The COMS data must be reduced as specified in 40 CFR 63.8(g)(2).

e. The Permittee must include in the site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in 40 CFR 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

f. The Permittee must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of 40 CFR 63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

g. The Permittee must determine and record all the daily block averages collected for periods during which the COMS is not out of control.

h. For purposes of collecting opacity data, the Permittee must operate the COMS as specified in 40 CFR 63.11221(b). For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, except that you must exclude certain data as specified in 40 CFR 63.11221(c). Periods when COMS data are unavailable may constitute monitoring deviations as specified in 40 CFR 63.11221(d).

i. For purposes of collecting opacity data, the Permittee must reduce the opacity monitoring data to 6-minute averages per Table 7 (Row 1b.) of 40 CFR 63 Subpart JJJJJJ.

5.4 The Permittee shall conduct a performance tune-up of the boiler (Source Code: B001) biennially as specified in 40 CFR 63.11223. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. The initial tune-up shall be conducted no later than 25 months after the initial startup of the boiler and shall include the following:
[40 CFR 63.11223(a) and (b), Table 2 of 40 CFR 63 Subpart JJJJJJ]

a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, but you must inspect each burner at least once every 36 months).

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

c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.

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

e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made).

f. Maintain onsite and submit, if requested by the Division, biennial report containing the following information:

i. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured before and after the tune-up of the boiler.

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

iii. The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler.

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

5.5 The Permittee shall install, calibrate, maintain, and operate a non-resettable continuous monitoring system (or device) for the emergency generator (Source Code: EG1) and the fire pump engine (Source Code: FP1) to track the hours of operation. The Permittee shall maintain documentation that demonstrates the reason the engine was in operation (emergency service or non-emergency service, maintenance and/or testing). The system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[391-3-1-.02(6)(b)1; 40 CFR 60.4209(a) and 40 CFR 63.6625(f)]

5.6 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the amount of propane burned in the boiler (Source Code: B001) on a daily basis, as well as calculate the total amount of propane burned on a monthly basis. Records shall be available for inspection by or submission to the Division upon request. The system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[40 CFR 60.49b(d)(2) and 391-3-1-.02(6)(b)1]

5.7 If dry sorbent injection is used, the Permittee shall maintain a 30-day rolling average sorbent injection rate at or above the minimum sorbent injection rate defined in Condition 4.5.
[391-3-1-.02(6)(b)1]

5.8 The Permittee shall operate equipment capable of detecting biomass feedstock contaminated with lead or chromate copper arsenate and removing the contaminated feedstock before it reaches the boiler (Source Code: B001). Alternatively, the Permittee may obtain certification from the biomass feedstock vendor stating that each shipment of feedstock does not contain chromate copper arsenate or lead, and complies with the applicable requirements in Condition 2.9 and 40 CFR 241.
[391-3-1-.02(6)(b)1]

6. Performance Testing

6.1 The Permittee shall cause to be conducted a performance test at any specified emission point when so directed by the Division. The following provisions shall apply with regard to such tests:

a. All tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants.

b. All test results shall be submitted to the Division within sixty (60) days of the completion of testing.

c. The Permittee shall provide the Division thirty (30) days prior written notice of the date of any performance test(s) to afford the Division the opportunity to witness and/or audit the test, and shall provide with the notification a test plan in accordance with Division guidelines.

d. All monitoring systems and/or monitoring devices required by the Division shall be installed, calibrated and operational prior to conducting any performance test(s). For any performance test, the Permittee shall, using the monitoring systems and/or monitoring devices, acquire data during each performance test run. All monitoring system and/or monitoring device data acquired during the performance testing shall be submitted with the performance test results.

6.2 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Section 2 which pertain to the emission units listed in Section 2.0 are as follows:

a. Method 1 for the determination of sample point locations.

b. Method 2, 2F, or 2G for the determination of stack gas flow rate.

c. Method 3 or 3A for the determination of stack gas molecular weight.

d. Method 3B for the determination of the emission rate correction factor or excess air; Method 3A may be used as an alternate.

e. Method 4 for the determination of stack gas moisture.

f. Method 5, Method 17 and Method 202 for the determination of particulate matter (PM) emissions.

g. Method 7 or 7E for the determination of nitrogen oxides (NO_X) emissions. The NO_X CERMS required by Condition 5.2a. shall be used for determining compliance with Condition 2.1.

h. Method 10 or 10b for the determination of carbon monoxide (CO) emissions. The CO CERMS required by Condition 5.2b. shall be used for determining compliance with Condition 2.1.

i. Method 9 for the determination of Opacity. Data from the COMS required by Condition 5.2e. may be used in lieu of Method 9 if the performance evaluation of the COMS has been completed and the results approved by the Division.

j. Method 19 when applicable, to convert pollutant emission concentration (i.e. grains/dscf for PM, ppm for gaseous pollutants), as determined using other methods specified in this section, to pollutant emission rates (i.e. lbs/MMBtu).

k. Method 26 or Method 26A for the determination of hydrogen fluoride (HF), hydrogen chloride (HCl) and chlorine (Cl_2) emissions; the sampling time for each run shall be a minimum of one hour.

l. Method 3A or 3C for the determination of carbon dioxide (CO_2) emissions; the sampling time for each run shall be a minimum of one hour.

m. NCASI Method ISS/FP A105.01 for the determination of acrolein emissions; the sampling time for each run shall be a minimum of one hour.

n. Method 0011 for the determination of formaldehyde and acetaldehyde emissions; the sampling time for each run shall be a minimum of one hour.

o. Method 18 or other approved method (SW-846, NCASI, etc.) for organic compounds detection for the determination of manganese, benzene, styrene, and toluene; the sampling time for each run shall be a minimum of one hour.

Minor changes in methodology may be specified or approved by the Director or his/her designee when necessitated by process variables changes in facility design, or improvement or corrections, which, in his opinion, render those methods or procedures, or portions thereof, more reliable.
[391-3-1-.02(3)(a)]

6.3 Within 180 days after initial startup of the boiler (Source Code: B001), the Permittee shall conduct performance evaluations of the continuous emissions rate monitoring systems (CERMS) and continuous opacity monitoring system (COMS) required by Conditions 5.2a., b., c., d., and e.
[40 CFR 60.13(c) and 60.48b(a)]

6.4 Within 180 days of the initial startup of the boiler (Source Code: B001), the Permittee shall conduct an initial performance test for hydrogen chloride (HCl) emissions, using the test method specified in Condition 6.2 operating at maximum load to establish an HCl emissions rate. The Permittee shall conduct subsequent performance tests every 36 months.
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

6.5 The Permittee shall conduct performance stack test for particulate matter (PM) from the boiler (Source Code: B001) according to 40 CFR 63.11212 on a triennial basis. The initial performance stack test for Particulate Matter shall be conducted within 180 calendar days after startup of the source, and the performance test shall be conducted according to the procedures in 40 CFR 63.11212 using the test methods specified in Condition 6.2.
[40 CFR 63.11220(a), 40 CFR 63.11210(d), 40 CFR 63.11212, and Table 4 (Row 1) of Subpart JJJJJJ]

6.6 Within 180 days of the initial startup of the boiler (Source Code: B001), the Permittee shall conduct an initial performance test for hydrogen fluoride, acrolein, benzene, formaldehyde, acetaldehyde, chlorine, styrene, and manganese emissions, using the test method specified in Condition 6.2 operating at maximum load to establish emission factors for these pollutants (in lbs/MMBtu) to be used in calculations required in Condition 7.8. The Permittee shall conduct subsequent performance tests every 36 months.
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

7. Notification, Reporting and Record Keeping Requirements

7.1 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and to the EPA. The records shall be retained for at least five (5) years following the date of entry.
[391-3-1-.02(6)(b)1(i)]

7.2 In addition to any other reporting requirements of this Permit, the Permittee shall report to the Division in writing, within seven (7) days, any deviations from applicable requirements associated with any malfunction or breakdown of process fuel burning, or emissions control equipment for a period of four hours or more which results in excessive emissions. The Permittee shall submit a written report which shall contain the probable cause of the deviation(s), duration of the deviation(s), and any corrective actions or preventive measures taken.
[391-3-1-.02(6)(b)1]

7.3 The Permittee shall provide all notifications as required per 40 CFR 60.7 and 40 CFR 63.9 by the dates specified. Specifically, the Permittee shall provide notifications of: [391-3-1-.02(6)(b)1]

a. The actual date of initial startup of the boiler (Source Code: B001), postmarked within 15 days after such date, and

b. The anticipated date of performance testing, including CERMS and COMS performance evaluations, at least 60 days before performance testing is scheduled to begin.

7.4 The Permittee shall submit a written report for each quarterly period ending March 31, June 30, September 30, and December 31 of each year that contains the following: [391-3-1-.02(6)(b)1]

a. A summary of opacity exceedances and COMS downtime during the reporting period. For the purposes of this condition, an opacity exceedance is defined as any 6-minute average opacity that exceeds the limits set forth in Condition 2.6.b;

b. Total boiler operating time for the calendar month in the reporting period;

c. The magnitude of all opacity exceedances and the date and time of the commencement and completion of each period of occurrence;

d. Specific identification of each period of such exceedances occurring during startups, shutdowns, or malfunction of the facility. Include the nature and cause of any malfunction (if known) and any corrective action taken or preventive measures adopted;

e. The date and time identifying each period during which the COMS was inoperative (including periods of malfunction), except for zero and span checks, and the nature of the repairs, adjustments, or replacement. When the COMS has not been inoperative, repaired, or adjusted, this shall be stated in the report; and

f. The type and amount of fuel burned during the reporting period.

All quarterly reports shall be submitted in a manner suitable to the Division and postmarked by the 30th day following the end of each reporting period, April 30, July 30, October 30, and January 30, respectively.

7.5 The Permittee shall submit a written report for each semiannual period ending June 30 and December 31 of each year, which includes the following information:
[391-3-1-.02(6)(b)1]

a. A summary of nitrogen oxides and carbon monoxide CERMS downtime during the reporting period;

b. A summary of sorbent injection and pressure drop excursions and sorbent injection and pressure drop monitor downtimes during the reporting period. For the purposes of this condition, a sorbent injection excursion is defined as any 3-hour block average that is below the operating level established during the most recent performance test;

c. The total operating time and the types and amounts of fuels fired in the boiler (Source Code: B001) during the reporting period;

d. The calculated monthly and consecutive 12-month rolling totals for hydrogen chloride (HCl), total HAPs, carbon monoxide (CO), and nitrogen oxides (NO_X) emissions, for each month of the reporting period;

e. The magnitude of all exceedances and excursions and the date and time of the commencement and completion of the occurrence of each exceedance and excursion.

f. Identification of each period of such exceedances and excursions occurring during startups, shutdowns, or malfunctions of the facility. Include the nature and cause of any malfunction (if known) and any corrective actions taken or preventive measures adopted;

g. The date and time of each period during which any required monitoring system or device was inoperative (including periods of malfunction), except for zero and span checks, and the nature of the repairs, adjustments, or replacement needed to make the system operational. When a monitoring system or device has not been inoperative, repaired, or adjusted, this shall be stated in the report;

h. Certification that the propane fuel burned in the boiler (Source Code: B001) complies with the requirements of Condition 2.7; and

i. The total quantity of propane burned in the boiler (Source Code: B001), determined on a 12-month rolling average basis for each calendar month in the reporting period to demonstrate compliance with Condition 2.8.

All semiannual reports shall be submitted in a manner suitable to the Division and postmarked by the 30th day following the end of each semiannual period, July 30 and January 30, respectively.

7.6 The Permittee shall maintain monthly records of the operation of the engine (Source Code: EG1) and the fire pump (Source Code: FP1) in emergency and non-emergency service, as recorded on the non-resettable hour meter required in Condition 5.5. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. Records shall be maintained for a period of five (5) years in a format suitable for inspection by or submission to the Division.
[391-3-1-.02(6)(b)1]

7.7 The Permittee shall demonstrate compliance with the emission limits in 40 CFR 60 Subpart IIII for the generator (Source Code: EG1) by purchasing a certified engine. The engine shall be installed and configured according to the manufacturer's specifications. Records shall be maintained for a period of five (5) years in a format suitable for inspection by or submission to the Division.
40 CFR 60.4211(c) and 391-3-1-.02(6)(b)1]

7.8 The Permittee shall use the following equations to calculate the monthly HCl, other individual HAPs, and Total HAPs emissions from the boiler (Source Code: B001), generator (Source Code: EG1), fire pump (Source Code: FP1), and the entire facility. All calculations shall be kept as part of the monthly record. These records shall be kept available for inspection by or submittal to the Division for five years from the date of record.
[391-3-1-.02(6)(b)1]

a. Calculation of monthly HCl emissions from the boiler.

HCl = (EF) (R) (Operating Hours) / (2000 lb/ton)

Where,

HCl = Monthly HCl emissions from the boiler in tons per month.

EF = Tested Emission Factor in lbs/MMBtu from stack testing results in Condition 6.4 and approved by the Division.

R = Rated Heat Input capacity (MMBtu/hr) for the boiler.

Operating Hours = Monthly hours of operation for the boiler.

b. Calculation of individual HAP Emissions (Other than HCl) from the boiler:

$HAP_i = (EF_i)$ (R) (Operating Hours) / (2000 lb/ton)
Where,

HAP_i = Monthly individual HAP emissions from the boiler in tons.

EF_i = Emission Factor for HAP_i in lbs/MMBtu as approved by the Division in Appendix B of the Permit Application No. 23292, and testing emission factors from stack testing results approved in Condition 6.6.

R = Rated Heat Input capacity (MMBtu/hr) for the boiler.

Operating Hours = Monthly hours of operation for the boiler.

c. Calculation of monthly HAP emissions from the listed ancillary equipment as follows: the enumerated list of ancillary equipment in this paragraph is intended to be inclusive of the operations at the facility, but if the Permittee or the Division determines that other sources of HAP exist at the facility but are not identified below, those other sources shall be included in the required summaries and reports specified in this Permit,

   i. HAP emissions from the emergency generator (Source Code: EG1) shall be calculated using emissions factors from AP-42, Section 3.4, Table 3.4-3, actual hours of operation per month (as recorded per Condition 5.5) and the emergency generator's rated heat input.

   ii. HAP emissions from the fire pump (Source Code: FP1) shall be calculated using emissions factors from AP-42, Section 3.4, Table 3.4-3, actual hours of operation per month (as recorded per Condition 5.5) and the fire pump's rated heat input.

d. Total HAPs emitted each month shall be calculated by adding the HAP emissions from a., b., and c. during the month.

7.9 The Permittee shall use the records required in Condition 7.8 to determine the total monthly emissions of combined hazardous air pollutants and the total monthly emissions of each hazardous air pollutant from the entire facility. All calculations, including any Division-approved emission factor and control efficiency, shall be kept as part of the records required in Condition 7.5. The Permittee shall notify the Division in writing if emissions of any individual hazardous air pollutant exceed 0.83 tons from the entire facility, or if emissions of all listed hazardous air pollutants combined exceed 2.08 tons from the entire facility, during any calendar month. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the applicable emission limit in Condition 2.2.
[391-3-1-.02(6)(b)1 and 391-3-1-.03(2)(c)]

7.10 The Permittee shall use data from the CERMS required by Condition 5.2 to determine and record the monthly mass emission rate, in tons, of NOx and CO emissions from the boiler (Source Code: B001) stack. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[391-3-1-.02(6)(b)1, and Avoidance of 40 CFR 52.21]

7.11 The Permittee shall use the following equations to calculate monthly mass emission rate, in tons per month, of NOx and CO from in the boiler (Source Code: B001), generator (Source Code: EG1), fire pump (Source Code: FP1), and the entire facility. All calculations shall be kept as part of the monthly record. These records shall be kept available for inspection by or submittal to the Division for five years from the date of record.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

a. Calculation of monthly NOx and CO Emissions from the boiler.

NOx = Monthly Emissions from the NOx CERMS per Condition 7.10.

CO = Monthly Emissions from the CO CERMS per Condition 7.10.

b. Calculation of monthly NOx and CO emissions from the listed ancillary equipment as follows: the enumerated list of ancillary equipment in this paragraph is intended to be inclusive of the operations at the facility, but if the Permittee or the Division determines that other sources of NOx and CO exist at the facility but are not identified below, those other sources shall be included in the required summaries and reports specified in this Permit,

i. NOx and CO emissions from the emergency generator (Source Code: EG1) shall be calculated using the NOx emission factor of 4.0 g/kW-hr and CO emission factor of 3.5 g/kW-hr or using the emission factors from AP-42, Section 3.4, Table 3.4-1 and actual hours of operation per month (as recorded per Condition 5.5).

ii. NOx and CO emissions from the fire pump (Source Code: FP1) shall be calculated using the emission factors from AP-42, Section 3.3 and actual hours of operation per month (as recorded per Condition 5.5).

c. Total NOx and CO emitted each month shall be calculated by adding the individual NOx and CO emissions from a. and b. during the month.

If at any time, the Division or the Permittee determines that other sources of NOx and CO emissions exist at the facility that are not included in Condition 7.11, those sources shall immediately be included in the required summaries and reports specified in this Permit using NOx and CO emission estimating or measuring methods approved by the Division.

7.12 The Permittee shall use the records required in Condition 7.11 to determine the facility-wide total monthly emissions of NOx and CO. All calculations, including any Division-approved emission factor and control efficiency used in calculations, shall be kept as part of the records required in Condition 7.11. The Permittee shall notify the Division in writing if emissions of NOx or CO required in Condition 7.11 exceed 20.75 tons from the entire facility, during any month, and/or the emissions of NOx or CO exceed 249 tons from the entire facility, during any twelve consecutive months, and shall include an explanation of how the Permittee intends to maintain compliance with the applicable emission limit in Condition 2.1.
[391-3-1-.02(6)(b)1 and 391-3-1-.03(2)(c)]

7.13 The Permittee shall submit, in writing to the Division, the results of the initial performance testing required by Conditions 6.4 and 6.5 within 60 days following the completion of each test.
[391-3-1-.02(6)(b)1 and 391-3-1-.03(2)(c)]

7.14 The Permittee shall maintain the following records from the boiler (Source Code: B001) as specified in 40 CFR 63.11225(c):
[40 CFR 63.11225(c)]

a. As required in 40 CFR 63.10(b)(2)(xiv), the Permittee must keep a copy of each notification and report that is submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted.

b. The Permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR 63.11214 as specified:

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

ii. Records documenting the fuel type(s) used monthly by each boiler, including, but not limited to, a description of the fuel, including whether the fuel has received a non-waste determination by the Permittee or EPA, and the total fuel usage amount with units of measure.

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

d. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

7.15 The Permittee shall submit the following notifications from the boiler (Source Code: B001) as specified in 40 CFR 63.11225(a):
[40 CFR 63.11225(a)]

a. The Permittee must submit all of the notifications in 40 CFR 63.7(b); 63.8(e) and (f); 63.9(b) through (e); and 63.9(g) and (h) that apply.

b. As specified in 40 CFR 63.11225(a)(2), the Permittee must submit the Initial Notification within 120 days after the source becomes subject to the standard.

c. If the Permittee is required to conduct a performance stack test, the Permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin.

d. The Permittee must submit the Notification of Compliance Status in accordance with 40 CFR 63.9(h) within 60 days of completing the performance stack test. In addition to the information required in 40 CFR 63.9(h)(2), the notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

i. This facility complies with the requirements in 40 CFR 63.11214 to conduct an initial tune-up of the boiler.

ii. This facility has had an energy assessment performed according to 40 CFR 63.11214(c), if required.

e. If the Permittee is using data from a previously conducted emission test to serve as documentation of conformance with the emission standards and operating limits of this subpart consistent with 40 CFR 63.7(e)(2)(iv), the Permittee must submit the test data in lieu of the initial performance test results with the Notification of Compliance Status required under paragraph d.

7.16 The Permittee shall prepare, by March 1 of each year, and submit to the Division, an annual compliance certification report for the previous calendar year containing the information specified in 40 CFR 63.11225(b) for the boiler (Source Code: B001). For boilers that are subject only to the requirement to conduct a biennial tune-up and not subject to any emission limits or operating limits, the Permittee may prepare only a biennial compliance report as described by 40 CFR 63.11225(b)(1) and (2). The report shall include the following:
[40 CFR 63.11225(b)]

a. Company name and address.

b. Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant

standards and other requirements of this subpart. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

i. This facility complies with the requirements in 40 CFR 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler.

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

iii. (If applicable) This facility complies with the requirement in 40 CFR 63.11214(d) and 40 CFR 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available.

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

d. The total fuel use by each affected boiler subject to an emission limit, for each calendar month within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by you or EPA through a petition process to be a non-waste under 40 CFR 241.3(c), whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3, and the total fuel usage amount with units of measure.

7.17 Within 60 days of completing each performance test, as defined in 40 CFR 63.2, conducted to demonstrate compliance with 40 CFR 63, Subpart JJJJJJ from the boiler (Source Code: B001), the Permittee shall submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (*see* http://www.epa.gov/ttn/chief/ert/ert_tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.
[40 CFR 63.11225(e)]

7.18 The Permittee shall keep records verifying that each shipment of propane fuel received for firing the boiler (Source Code: B001) at the facility complies with the applicable requirements in Condition 2.7. Verification shall consist of the propane receipts and/or propane supplier certifications, or results of analyses of the propane conducted by methods of sampling and analysis, which have been specified or approved, by the EPA or the Division. These records shall be kept available for inspection or submittal for five (5) years from the date of record.
[40 CFR 60.41b and 391-3-1-.02(6)(b)1]

7.19 The Permittee shall keep records verifying that each shipment of biomass feedstock received for firing the boiler (Source Code: B001) at the facility complies with the applicable requirements in Condition 2.9 and 40 CFR 241. Verification shall consist of a certification from the vendor that each shipment of feedstock delivered to the facility does not contain chromate copper arsenate or lead and meets the definition of clean cellulosic biomass in 40 CFR 241. These records shall be kept available for inspection or submittal for five (5) years from the date of record.
[40 CFR 241.2 and 391-3-1-.02(6)(b)1]

8. Special Conditions

8.1 At any time that the Division determines that additional control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and welfare, the Division reserves the right to amend the provisions of this Permit pursuant to the Division's authority as established in the Georgia Air Quality Act and the rules adopted pursuant to that Act.

8.2 The Permittee shall calculate and pay an annual Permit fee to the Division. The amount of the fee shall be determined each year in accordance with the "Procedures for Calculating Air Permit Fees."

8.3 Georgia Air Quality Permit No. 4911-119-0025-E-03-0 issued July 29, 2008 and its Amendments are hereby revoked in their entirety.

8.4 The Permittee shall submit an Initial Title V permit application in accordance with 40 CFR 70.5 within 12 months of initial startup of the facility and include changes to final rules affecting Non-Hazardous Secondary Materials.