PERMIT AMENDMENT NO. 4911-119-0025-E-04-2
ISSUANCE DATE: 4/18/2019

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Air Quality – Permit Amendment

In accordance with 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 or in effect under that Act, Permit No. 4911-119-0025-E-04-0 issued on August 27, 2015 to:

Facility Name:	**GRP Franklin Renewable Energy Facility**
Facility Address:	**3465 Highway 198** **Carnesville, Georgia 30521 Franklin County**
Mailing Address:	**3465 Highway 198** **Carnesville, Georgia 30521**
Facility AIRS Number:	**04-13-119-00025**

for the following: Construction and operation of a 58 MW steam-turbine generator powered by steam from a 700 MMBtu/hr boiler (Source Code: B001) firing a combination of clean cellulosic biomass from clean construction and demolition wood, and distillate fuel oil; ancillary equipment includes a 500-kW emergency generator, a 280-hp fire pump, storage tanks and a cooling tower.

is hereby amended as follows: The construction and operation of a belt dryer (Source Code: BL01) for the drying of wood chips, addition of "other-treated railroad ties" to the list of fuels allowed for boiler B001, and update the size of some of the equipment.

Reason for Amendment: Application No. 26985 dated February 28, 2019

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 4 page(s).

This Permit Amendment is hereby made a part of Permit No. 4911-119-0025-E-04-0 and compliance herewith is hereby ordered. Except as amended hereby, the above referenced Permit remains in full force and effect.

[Signed]

Richard E. Dunn, Director
Environmental Protection Division

UPDATED LIST OF EMISSION UNITS

Emission Units		Air Pollution Control Devices	
ID No.	Description	ID No.	Description
B001	Wood biomass fired stoker boiler with a heat input capacity of 700 MMBtu/hr	ESP1 CYC1 SCR1 CAT1 DSI	Electrostatic Precipitator Cyclone Selective Catalytic Reduction System Oxidation Catalyst Dry Sorbent Injection (optional)
BL01	**Belt Dryer**	**NA**	**NA**
EG1	**500** kW Diesel-fired emergency generator	NA	NA
FP1	**280** 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 5,400 ft^3)	NA	NA
SO1	Sorbent storage silo (approximately 1,500 ft^3)	NA	NA
SA1	Sand storage silo	NA	NA

2. Allowable Emissions

2.5 The Permittee shall only fire clean cellulosic biomass, which may include clean construction and demolition wood, creosote treated railroad ties, **creosote-borate treated railroad ties, copper naphthenate treated railroad ties, copper naphthenate-borate treated railroad ties,** and distillate fuel oil in the boiler (Source Code: B001). "Clean cellulosic biomass", "creosote treated railroad ties", **"creosote-borate treated railroad ties", "copper naphthenate treated railroad ties", and "copper naphthenate-borate treated railroad ties"** are defined in Condition 2.9 and 40 CFR 241.
[391-3-1-.03(2)(c); 40 CFR 63.11200(b) and 40 CFR 241.2]

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 comingled with such compounds or lead is not considered clean cellulosic biomass.

"Creosote treated railroad ties" means railway support ties treated with a wood preservative containing creosols and phenols and made from coal tar oil.

"Creosote-borate treated railroad ties" means railroad ties treated with a wood preservative containing creosols and phenols and made from coal tar oil and borate, including borate made from disodium octaborate tetrahydrate.

"Copper naphthenate treated railroad ties" means railroad ties treated with copper naphthenate made from naphthenic acid and copper salt.

"Copper naphthenate-borate treated railroad ties" means railroad ties treated with copper naphthenate and borate, including borate made from disodium octaborate tetrahydrate.
[391-3-1-.03(2)(c) and 40 CFR 241.2]

2.19 Prior to burning creosote treated railroad ties, **creosote-borate treated railroad ties, copper naphthenate treated railroad ties, or copper naphthenate-borate treated railroad ties** in the boiler (Source Code: B001), the railroad ties shall be processed by, at a minimum, metal removal and shredding or grinding.
[40 CFR 241.4(a) (7), **(8), (9), and (10)**]

6. Performance Testing

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 (NOX) emissions. The NOX 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 (Cl2) 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 (CO2) 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.

p. Method 29 for the determination of metal emissions, the sampling time for each run shall be a minimum of one hour.

q. Method 25A for the determination of VOC emissions, 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)]

6.7 Within 180 days of the initial startup of the boiler (Source Code: B001), the Permittee shall conduct an initial performance test for 1,2-dibromoethane, hydrogen chloride, arsenic, chromium, lead, silver, **and VOC** using the test method specified in Condition 6.2 operating at maximum.
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

NEW CONDITION

6.9 Within 180 days of the initial startup of the belt dryer (Source Code: BL01), the Permittee shall conduct an initial performance test for VOC using the test method specified in Condition 6.2. The belt dryer shall be operating at its maximum rate.
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

7. Notification, Reporting and Record Keeping Requirements

7.21 The Permittee shall keep records showing that the creosote treated railroad ties, **creosote-borate treated railroad ties, copper naphthenate treated railroad ties, and copper naphthenate-borate treated railroad ties** combusted in the boiler (Source Code: B001) have, at a minimum, been processed to remove metal and ground or shredded.
[40 CFR 60.2175(b) and 40 CFR 241.4(a) (7), **(8), (9), and (10)**]