AIR QUALITY PERMIT

Permit No. **Effective Date**
4911-301-0016-P-01-0

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: **Warren County Biomass Energy Facility**

Mailing Address: 2100 East Exchange Place
Tucker, Georgia 30084

is issued a Permit for the following:

To construct and operate a 100-megawatt (MW) biomass fired power plant. The proposed project will include a fluidized bed boiler with a maximum heat input capacity of 1,399 million British thermal unit per hour (MMBtu/hr), two compression ignition fire water pump emergency engines, a raw material handling and storage area, a sorbent storage silo, a boiler bed sand storage silo, a sand day storage hopper, a fly ash storage silo, a bottom ash storage silo, storage tanks, and a four-cell mechanical draft wet cooling tower.

Facility Location: 612 East Warrenton Road
Warrenton, Georgia 30828 (Warren 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. 19121 dated August 6, 2009 and updated on October 14, 2009; 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 **33** pages.

Director
Environmental Protection Division

LIST OF EMISSION UNITS

Emission Units		Air Pollution Control Devices	
ID No.	**Description**	**ID No.**	**Description**
B001	Bubbling Fluidized Boiler with a maximum heat input capacity of 1,399 MMBtu/hr	BHB1	Fabric Filter Baghouse
		SNCR	Selective Non-Catalytic Reduction System
		DSI	Duct Sorbent Injection System
FP01	420 horsepower (hp) Compression Ignition Fire Water Pump Emergency Engine	NA	None
FP02	175 hp Compression Ignition Fire Water Pump Emergency Engine	NA	None
CT01	Counterflow Mechanical Draft Cooling Tower	DE	Drift Eliminators

Storage Tanks

Emission Units		Air Pollution Control Devices	
ID No.	**Description**	**ID No.**	**Description**
TK01	60,000-Gallon Biodiesel Storage Tank	NA	None
TK02	500-Gallon Day ULSD Storage Tank for the Compression Ignition Fire Water Pump	NA	None
TK03	4,100-Gallon Turbine Lube Oil Reservoir	NA	None
TK04	400-Gallon Turbine Lube Oil Dump Tank	NA	None
TK05	60,000-Gallon Biodiesel Storage Tank	NA	None
TK06	500-Gallon Day ULSD Storage Tank for the Compression Ignition Fire Water Pump	NA	None
TK07	20,000-Gallon Urea Storage Tank	NA	None

Biomass Fuel Preparation and Handling (BFPH Group)

Emission Units		Air Pollution Control Devices	
ID No.	**Description**	**ID No.**	**Description**
Non-Fugitive Emission Sources			
FDR1 - FDR6 CV01 and CV02	Biomass (fuel) Unloading Operation includes: 6 feeder conveyors 2 collecting belt conveyors	BM01	Fabric Filter Baghouse Enclosure
CV03 and CV04 GAT1 and GAT2 SCN1 and SCN2 GRN1 and GRN2 FDR7 and FDR8	Biomass (fuel) Processing Building includes: 2 Receiving Belts 2 Diverter gates 2 Scalping screens 2 Wood hogs 2 Collecting feeders	BM02	Fabric Filter Baghouse Enclosure
CV13 CV14	Biomass (fuel) Transfer Tower includes: Stockout belt conveyor Boiler reclaim belt conveyor	BM03	Fabric Filter Baghouse Enclosure
CV14 CV15 CV16 GAT3	Boiler Building Fuel Transfer operations include: Boiler reclaim belt conveyor Distribution drag chain conveyor Overfill return belt conveyor Diverter Gate	BM04	Fabric Filter Baghouse Enclosure
GRN3	Diesel powered 125 tons per hour Longwood Mobile Chipper	BM10	Fabric Filter Baghouse Enclosed chute
Fugitive Emission Sources			
SP01	Processed Wood Pile 1	NA	None
SP02	Processed Wood Pile 2	NA	None
SP03	Longwood Storage Pile	NA	None
Road	Fugitive Road Dust		Pave roads, minimize speed, and watering
TX01	Raw Material Unloading/Truck Dump (DMP1-DMP6)		Water sprays
TX02	Dump (DMP1-DMP6) to Hopper (HPR1-HPR6)		Water sprays
TX03	2 Fuel Transfer Belt Conveyors (CV05, CV06) to 2 Radial Stacking Belt Conveyors (CV07, CV08)		Enclosed, water sprays
TX04	Radial Stacking Belt Conveyor (CV07) to Radial Stock Pile (SP01)		Water sprays, telescopic chutes
TX05	Radial Stacking Belt Conveyor (CV08) to Radial Stock Pile (SP02)		Water sprays, telescopic chutes
TX06	Radial Stock Pile (SP01) to Reclaim Chain Conveyor (CV09)		Water sprays
TX07	Radial Stock Pile (SP02) to Reclaim Chain Conveyor (CV10)		Water sprays

TX08	Reclaim Chain Conveyor (CV09) to Reclaim Belt Conveyor (CV11)		Water sprays
TX09	Reclaim Chain Conveyor (CV10) to Reclaim Belt Conveyor (CV12)		Water sprays
TX10	Reclaim Belt Conveyor (CV11) to Stockout Belt Conveyor (CV13)	NA	None
TX11	Reclaim Belt Conveyor (CV12) to Stockout Belt Conveyor (CV13)	NA	None
TX12	Longwood Material Unloading	NA	None

Material Storage Silos (MSS Group)

Emission Units		Air Pollution Control Devices	
ID No.	**Description**	**ID No.**	**Description**
SSS	Sorbent Storage Silo	BM05	Bin Vent Fabric Filter
BBSSS	Boiler Bed Sand Storage Silo	BM06	Bin Vent Fabric Filter
SDSH	Sand Day Storage Hopper	BM07	Bin Vent Fabric Filter
BASA	Bottom Ash Storage Area	BM08	Fabric Filter Baghouse
FASS	Fly Ash Storage Silo	BM09	Bin Vent Fabric Filter

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.

1.6 The Permittee shall comply with all applicable provisions of the New Source Performance Standards (NSPS) 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 operation of the Bubbling Fluidized Bed Boiler (Source Code: B001). [40 CFR 60, Subparts A and Db]

1.7 The Permittee shall comply with the 40 CFR 60, Subpart A “General Provisions” and 40 CFR 60, Subpart IIII “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines” for operation of the Fire Water Pump Emergency Engines (Source Codes: FP01 and FP02).
[40 CFR 60, Subparts A and IIII]

1.8 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 Fire Water Pump Emergency Engines (Source Codes: FP01 and FP02).
[40 CFR 63, Subparts A and ZZZZ]

2. Allowable Emissions

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

2.1 The Permittee shall construct and operate the source or modification that is subject to Georgia Rule 391-3-1-.02(7) in accordance with the application submitted pursuant to that rule. If the Permittee constructs or operates a source or modification not in accordance with the application submitted pursuant to than rule or with the terms of any approval to construct, the Permittee shall be subject to appropriate enforcement action.
[40 CFR 52.21(r)(1)]

2.2 Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Director may extend the 18-month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between constructions of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date. For the purpose of this Permit, the definition of "commence" is given in 40 CFR 52.21(b)(9).
[40 CFR 52.21(r)(2)]

2.3 The Permittee shall prepare and submit an initial Title V Operating Permit Application for the operation of the Warren County Biomass Energy Facility in accordance with 40 CFR 70.5 within 12 months after commencing operation. The Permittee must address potential 40 CFR 64 "Compliance Assurance Monitoring" applicability in its initial Title V Operating Permit Application.
[40 CFR 64 and 40 CFR 70]

2.4 For purposes of this Permit, Bubbling Fluidized Bed Boiler (Source Code: B001), Fabric Filter Baghouse (Control Device ID No: BHB1), Selective Non-Catalytic Reduction System (Control Device ID No: SNCR), and Duct Sorbent Injection System (Control Device ID No: DSI) share a common stack, Stack No. B001.
[40 CFR 52.21(j)]

2.5 For the purposes of this Permit, the following operating loads are defined for the Bubbling Fluidized Bed Boiler (Source Code: B001):
[40 CFR 52.21(j)]

a. Short-term Load [valves wide open (VWO)]: Source B001 operating at the maximum heat input capacity of 1,399 MMBtu/hr.

b. Minimum Operating Load: Source B001 operating at heat input capacity of 513 MMBtu/hr.

2.6 For the purposes of this Permit, the following scenario shall be used for the startup and shutdown of the Bubbling Fluidized Bed Boiler (Source Code: B001):
[40 CFR 52.21(j)]

a. Startup while firing Biodiesel fuel (B100) shall last no longer than 18 hours from initial firing.

b. Shutdown shall last no longer than 4 hours.

c. Startups and shutdowns shall not exceed 40 startup/shutdown events per year.

2.7 For the purposes of this Permit, Biomass shall consist of organic matter excluding fossil fuels, including agricultural crops, plants, trees, wood, wood residues, sawmill residue, sawdust, wood chips, bark chips, and forest thinning, harvesting or clearing residues; wood residue from pallets or other wood demolition debris, peanut shells, pecan shells, cotton plants, corn stalk and plant matter including aquatic plants, grasses, stalks, vegetation, and residues including hulls, shells, or cellulose containing fibers.

Any wood wastes that have been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote are not considered biomass. Plywood, particle board, oriented strand board, and other types of wood wastes bound by glues and resins are also not considered biomass.
[40 CFR 52.21(j)]

2.8 The Permittee shall only fire biomass as defined by Condition 2.7 in the Bubbling Fluidized Bed Boiler (Source Code: B001). Biodiesel fuel may be burned during the normal operation period of the boiler. Biodiesel may be burned during startup and shutdown.
[40 CFR 52.21(j)]

2.9 The Permittee shall not cause, let, suffer, permit or allow the emission of nitrogen oxides (NOx) from the Bubbling Fluidized Bed Boiler (Source Code: B001) in amounts equal to or exceeding 0.10 pounds per million Btu (lbs/MMBtu) on a 30-day rolling average, excluding periods of startup and shutdown.
[40 CFR 52.21 and 391-3-1-.02(2)(d) subsumed]

2.10 The Permittee shall not cause, let, suffer, permit or allow the emission of filterable particulate matter less than 10 micrometers in diameter (PM/PM_{10}) from the Bubbling Fluidized Bed Boiler (Source Code: B001) in amounts equal to or exceeding 0.010 pounds per million Btu (lbs/MMBtu).
[40 CFR 52.21; 40 CFR 60.43b(h)(1), and 391-3-1-.02(2)(d) subsumed]

2.11 The Permittee shall not cause, let, suffer, permit or allow the emission of total particulate matter less than 10 micrometers in diameter (PM/PM_{10}) and total $PM_{2.5}$ from the Bubbling Fluidized Bed Boiler (Source Code: B001) in amounts equal to or exceeding 0.018 pounds per million Btu (lbs/MMBtu).
[40 CFR 52.21; 40 CFR 60.43b(h)(1), and 391-3-1-.02(2)(d) subsumed]

2.12 The Permittee shall not cause, let, suffer, permit or allow the emission of sulfur dioxide (SO_2) from the Bubbling Fluidized Bed Boiler (Source Code: B001) in amounts equal to or exceeding 0.010 pounds per million Btu (lbs/MMBtu) on a 30-day rolling average, excluding periods of startup and shutdown.
[40 CFR 52.21; 40 CFR 60.42b(k)(1), and 391-3-1-.02(2)(g) subsumed]

2.13 The Permittee shall not cause, let, suffer, permit or allow the emission of carbon monoxide (CO) from the Bubbling Fluidized Bed Boiler (Source Code: B001) in amounts equal to or exceeding 0.08 pounds per million Btu (lbs/MMBtu) on a 30-day rolling average, excluding periods of startup and shutdown.
[40 CFR 52.21(j)]

2.14 The Permittee shall not cause, let, suffer, permit or allow the emission of filterable particulate matter less than 10 micrometers in diameter (PM/PM_{10}) and $PM_{2.5}$ in amounts equal to or exceeding 0.005 grains per dry standard cubic feet (gr/dscf) for the following biomass fuel preparation and handling:
[40 CFR 52.21(j)]

a. Biomass unloading operations, which include six feeder conveyors (Source Codes: FDR1-FDR6) and two collecting belt conveyors (Source Codes: CV01 and CV02),

b. Biomass processing building, which includes two receiving belts (Source Codes: CV03 and CV04), two diverter gates (Source Codes: GAT1 and GAT2), two scalping screens (Source Codes: SCN1 and SCN2), two wood hogs (Source Codes: GRN1 and GRN2), and two collecting feeders (Source Codes: FDR7 and FDR8),

c. Biomass transfer tower, which includes the transfer from the stockout belt conveyor (Source Code: CV13) to the boiler reclaim belt conveyor (Source Code: CV14),

d. Boiler building fuel transfer operations, which include the boiler reclaim belt conveyor (Source Code: CV14), diverter gate (Source Code: GAT3), distribution drag chain conveyor (Source Code: CV15), and overfill return belt conveyor (Source Code: CV16).

e. Longwood grinding, which includes the longwood mobile chipper (Source Code: GRN3).

2.15 The Permittee shall not cause, let, suffer, permit or allow the emission of filterable particulate matter less than 10 micrometers in diameter (PM/PM_{10}) and $PM_{2.5}$ from the Sorbent Storage Silo, Boiler Bed Sand Storage Silo, Sand Day Storage Hopper, Fly Ash Storage Silo, and Bottom Ash Storage Area (Source Codes: SSS, BBSSS, SDSH, FASS, and BASA) in amounts equal to or exceeding 0.005 grains per dry standard cubic feet (gr/dscf).
[40 CFR 52.21(j)]

2.16 The Permittee shall not cause, let, suffer, permit or allow any visible emissions non-fugitive sources, which the opacity is equal to or greater than 5 percent opacity for each of the biomass fuel preparation and handling equipment in Emissions Group BFPH and the material storage silos equipment in Emissions Group MSS.

The emission limits of this Condition apply during all times of operation, including startup, shutdown, and malfunction.
[40 CFR 52.21; 40 CFR 60.672, 391-3-1-.02(2)(b), and 391-3-1.02(2)(n) subsumed]

2.17 The Permittee shall not cause, let, suffer, permit or allow a mass flow rate on the counterflow mechanical draft cooling tower (Source Code: CT01) equal to or greater than as determined to allow drift eliminator effectiveness of 0.0005% guaranteed.
[40 CFR 52.21(j)]

2.18 The Permittee shall not discharge or cause the discharge into the atmosphere from the Bubbling Fluidized Bed Boiler (Source Code: B001), nitrogen oxides (NOx) emissions equal to or greater than 648 tons during any consecutive twelve-month period. This limit applies during all times of operation, including startup, shutdown, and malfunction.
[40 CFR 52.21(j)]

2.19 The Permittee shall not discharge or cause the discharge into the atmosphere from the Bubbling Fluidized Bed Boiler (Source Code: B001), carbon monoxide (CO) emissions equal to or greater than 625 tons during any consecutive twelve-month period. This limit applies during all times of operation, including startup, shutdown, and malfunction.
[40 CFR 52.21(j)]

2.20 The Permittee shall not discharge or cause the discharge into the atmosphere from the Bubbling Fluidized Bed Boiler (Source Code: B001), sulfur dioxide (SO_2) emissions equal to or greater than 56 tons during any consecutive twelve-month period. This limit applies during all times of operation, including startup, shutdown, and malfunction.
[40 CFR 52.21(j)]

2.21 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.
[40 CFR 63 Avoidance and 391-3-1-.03(2)(c)]

2.22 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the all storage silos and all biomass handling systems (Emission Groups: MSS and BFPH) at the facility 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.

2.23 The Permittee shall limit the Water Fire Pump Emergency Engines (Source Codes: FP01 and FP02) to emergency standby fire suppression system operation only and shall operate each fire pump less than 500 hours during any consecutive twelve-month period. Any operation other than emergency operation, maintenance checks and readiness testing is prohibited.
[40 CFR 52.21(j)]

2.24 The Permittee shall not discharge into or cause the discharge into the atmosphere from the Water Fire Pump Emergency Engines (Source Codes: FP01 and FP02) at the facility any visible emissions the opacity of which is equal to or greater than 20 percent during the acceleration mode, 15 percent during the lugging mode, and 50 percent during the peaks in either acceleration or lugging modes.
[40 CFR 60.4202(a) and 391-3-1-.02(2)(b) subsumed]

2.25 The accumulated non-emergency service (maintenance checks and readiness testing) time for the Water Fire Pump Emergency Engines (Source Codes: FP01 and FP02) shall not exceed 100 hours per year. Any operation other than emergency operation, maintenance checks and readiness testing is prohibited.
[40 CFR 60.4211(e)]

2.26 The Permittee shall fuel the Water Fire Pump Emergency Engines (Source Codes: FP01 and FP02) and the Longwood Mobile Chipper (Source Code: GRN3) with ultra low sulfur diesel (ULSD) that has a maximum sulfur content of 15 ppm (0.0015% by weight).
[40 CFR 52.21(j), 40 CFR 60.4207, and 391-3-1-.02(2)(g) subsumed]

2.27 The Permittee shall remove the Longwood Mobile Chipper (Source Code: GRN3) from the facility within 12 month after initial startup of Boiler B001.
[391-3-1-.03(2)(c) and 40 CFR 60, Subpart IIII Avoidance]

2.28 The Permittee shall not cause, let, suffer, permit or allow any visible emissions of which the opacity is equal to or greater than 20 percent opacity (6-minute average) except for one 6-minute period per hour of not more than 27 percent opacity from the Bubbling Fluidized Bed Boiler (Source Code: B001), except periods of startup, shutdown, or malfunction.
[40 CFR 60.43b(f) and 391-3-1-.2(2)(d)]

2.29 The Permittee shall not cause, let, suffer, permit or allow the emission of nitrogen oxides (NOx) from the Bubbling Fluidized Bed Boiler (Source Code: B001) in amounts equal to or exceeding 0.28 pounds per million Btu (lbs/MMBtu) on a 1-hour average.
[40 CFR 52.21(j)]

2.30 The Permittee shall not cause, let, suffer, permit or allow the emission of sulfur dioxide (SO_2) from the Bubbling Fluidized Bed Boiler (Source Code: B001) in amounts equal to or exceeding 0.095 pounds per million Btu (lbs/MMBtu) on a 1-hour average.
[40 CFR 52.21(j)]

2.31 The Permittee shall comply with all applicable provisions of 40 CFR 60, Subpart A, “General Provision” and Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" for the operation of the Sorbent Storage Silo (Source Code: SSS) and for the operation of the Sorbent milling process and associated conveying system at the facility.
[40 CFR 60 Subpart OOO]

2.32 The Permittee shall not discharge or cause the discharge into the atmosphere from each of the processing equipment subject to 40 CFR 60, Subpart OOO, any:
[40 CFR 60.672 (a) through (h)]

a. Fugitive emissions greater than 7 percent opacity except for any crusher that does not use a capture system, which shall not exhibit fugitive emissions greater than 12 percent opacity. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this condition.

b. Stack emissions which:

i. Contain particulate matter in excess of 0.032 g/dscm (0.014 grains/dscf) except for any storage bin utilizing a dedicated bin vent.

ii. Exhibit greater than 7 percent opacity, unless a wet scrubbing control device is used as the primary control device. A wet scrubbing control device shall comply with the 40 CFR 60.676 (c), (d), and (e).

c. Visible emissions from:

i. Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.

ii. Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

For processing equipment subject to 40 CFR 60, Subpart OOO located inside a building, the Permittee shall comply with the above process equipment limits (a, b and c), or shall not discharge or cause the discharge into the atmosphere, any

d. Visible fugitive emissions from the building except for powered building vents subject to limits according to "e".

e. Emissions from a powered building vent which:

i. Contain particulate matter in excess of 0.032 g/dscm (0.014 grains/dscf).

ii. Exhibit greater than 7 percent opacity.

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 To comply with Conditions 2.9, 2.18, and 2.29, the Permittee shall install a Selective Non-Catalytic Reduction System (Control Device ID: SNCR) at the Stack B001. The Permittee shall operate Control Device SNCR at all times the Bubbling Fluidized Bed Boiler (Source Code: B001) is operating.
[40 CFR 52.21]

4.2 To comply with Conditions 2.10 and 2.11, the Permittee shall install a Fabric Filter Baghouse (Control Device ID No. BHB1) at the Stack B001 for the Bubbling Fluidized Bed Boiler. The Permittee shall operate Control Device BHB1 at all times the Bubbling Fluidized Bed Boiler (Source Code: B001) is operating.
[40 CFR 52.21]

4.3 To comply with Conditions 2.12, 2.20, 2.21, and 2.30, the Permittee shall install a Duct Sorbent Injection System (Control Device ID No. DSI) at the Stack B001 for the Bubbling Fluidized Bed Boiler. The Permittee shall operate Control Device DSI at all times the Bubbling Fluidized Bed Boiler (Source Code: B001) is operating.
[40 CFR 52.21]

4.4 To comply with Condition 2.16, the Permittee shall install the following:
[40 CFR 52.21(j)]

a. Biomass unloading operations, which include six feeder conveyors (Source Codes: FDR1-FDR6) and two collecting belt conveyors (Source Codes: CV01 and CV02) – Fabric Filter Baghouse (Control Device ID No. BM01) and Discharge Enclosure,

b. Biomass processing building, which includes two receiving belts (Source Codes: CV03 and CV04), two diverter gates (Source Codes: GAT1 and GAT2), two scalping screens (Source Codes: SCN1 and SCN2), two wood hogs (Source Codes: GRN1 and GRN2), and two collecting feeders (Source Codes: FDR7 and FDR8) – Fabric Filter Baghouse (Control Device ID No. BM02) and Enclosure,

c. Biomass transfer tower, which includes the transfer from the stockout belt conveyor (Source Code: CV13) to the boiler reclaim belt conveyor (Source Code: CV14) – Fabric Filter Baghouse (Control Device ID No. BM03) and Enclosure,

d. Boiler building fuel transfer operations, which include the boiler reclaim belt conveyor (Source Code: CV14), distribution drag chain conveyor (Source Code: CV15), and overfill return belt conveyor (Source Code: CV16) – Fabric Filter Baghouse (Control Device ID No. BM04), gate diverter (Source Code: GAT3), and Enclosure,

e. Longwood grinding, which includes the Longwood Mobile Chipper (Source Code: GRN3) – Fabric Filter Baghouse (Control Device ID No. MB10) and Enclosure,

f. Emission units (Source Codes: TX01 through TX03 and TX06 through TX09) –Water Sprays (as needed),

g. Emission units (Source Codes: TX04 and TX05) – Telescopic Chutes and Water Sprays (as needed),

h. Sorbent Storage Silo (Source Code: SSS) - Bin Vent Fabric Filter (Control Device ID No. BM05),

i. Boiler Bed Sand Storage Silo (Source Code: BBSSS) – Bin Vent Fabric Filter (Control Device ID No. BM06),

j. Sand Day Storage Hopper (Source Code: SDSH) - Bin Vent Fabric Filter (Control Device ID No. BM07),

k. Bottom Ash Storage Area (Source Code: BASA) - Fabric Filter Baghouse (Control Device ID No. BM08),

l. Fly Ash Storage Silo (Source Code: FASS) – Bin Vent Fabric Filter (Control Device ID No. BM09).

The Permittee shall operate control equipment listed in a. through l. of this Condition, except for water sprays at all times the applicable equipment listed in a. through l. of this Condition is operating, including startup, shutdown, and malfunction.

4.5 To comply with Condition 2.17, the Permittee shall install drift eliminators (Control Device ID: DE) on the cooling tower (Source Code: CT01). The Permittee shall operate Control Device DE at all times Source CT01 is operating, including startup, shutdown, and malfunction.
[40 CFR 52.21(j)]

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 40 CFR 52.21]

a. A Continuous Emissions Monitoring System (CEMS) for measuring NOx emissions discharged to the atmosphere from the Bubbling Fluidized Bed Boiler (Source Code: B001). The 1-hour average NOx emissions rates shall also be recorded in pound per million Btu heat input.

b. A Continuous Opacity Monitoring System (COMS) for measuring opacity discharged to the atmosphere from the Bubbling Fluidized Bed Boiler (Source Code: B001).

c. A Continuous Emissions Monitoring System (CEMS) for measuring SO_2 discharged to the atmosphere from the Bubbling Fluidized Bed Boiler (Source Code: B001). The 1-hour average SO_2 emissions rates shall also be recorded in pound per million Btu heat input.

d. A Continuous Emissions Monitoring System (CEMS) for measuring CO_2 or O_2 discharged to the atmosphere from the Bubbling Fluidized Bed Boiler (Source Code: B001). The 1-hour average CO_2 and O_2 emissions rates shall also be recorded in pound per million Btu heat input.

e. A Continuous Emissions Monitoring System (CEMS) for measuring CO discharged to the atmosphere from the Bubbling Fluidized Bed Boiler (Source Code: B001). The 1-hour average CO emissions rates shall also be recorded in pound per million Btu heat input.

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, SO_2, and CO 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 area 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 CEMS, 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 (CEMS) required by Condition 5.2.a, c, d, and e.

5.3 The Permittee shall install, calibrate, maintain, and operate a system to continuously monitor and record the indicated parameters on the following equipment. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21(j)]

a. Monitor to continuously determine the sorbent injection flow rate for each sorbent used into the Duct Sorbent Injection System (Control Device ID: DSI) for the bubbling fluidized bed boiler.

b. The heat input to the Bubbling Fluidized Bed Boiler (Source Code: B001). Data shall be recorded hourly.

5.4 The Permittee shall retain monthly records of all fuel burned in the Bubbling Fluidized Bed Boiler (Source Code: B001). The records shall be available for inspection or submittal to the Division, upon request, and contain the following.
[391-3-1-.02(6)(b)1]

a. Quantity (gallons) of biodiesel fuel burned.

b. Quantity (tons) of biomass burned.

5.5 The Permittee shall verify that each shipment of fuel received for combustion in Sources FP01 or FP02 complies with the sulfur content requirements of Condition 2.26. Verification shall consist of either of the following:
[391-3-1-.02(6)(b)1]

a. Fuel oil receipts obtained from the fuel supplier certifying that the oil meets the sulfur content limits detailed in Condition 2.26.

Or

b. Analysis of the fuel oil conducted by methods of sampling and analysis, which have been specified or approved by the Division.

The Permittee shall retain the records of such certification or fuel analysis in a form suitable for inspection and/or submittal to the Division.

5.6 Monitoring will consist of records demonstrating that water sprays are applied “as warranted” for adequate dust control. “As warranted” is defined in the permit as dust control sufficient to keep visible emissions below the limit specified in Condition 2.16.
[40 CFR 52.21(j)]

5.7 The Permittee shall install, calibrate, maintain, and operate a non-resettable continuous monitoring system (or device) for the Water Fire Pump Emergency Engines (Source Codes: FP01 and FP02) 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.
[40 CFR 60.4209(a) and 391-3-1-.02(6)(b)1]

5.8 The Permittee shall conduct quarterly 30-minute visible emissions inspection of the Sorbent Storage Silo (Source Code: SSS) using Method 22 of the Division's **Procedures for Testing and Monitoring Sources of Air Pollutants**. The Method 22 test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the Permittee must initiate correction action within 24 hours to return the baghouse to normal operation. The Permittee must record each Method 22 test, including the data and any correction actions taken, in the logbook required by 40 CFR 60.676(b) and Condition 7.3
[40 CFR 60.674(c)]

5.9 The Permittee shall perform a check of visible emissions from all baghouses (including process baghouses) controlling the biomass fuel preparation and handling equipment in Emissions Group BFPH and the material storage silos equipment in Emissions Group MSS, and from sources added or replaced in accordance with this permit and Rule 391-3-1-.03(6). Emission units monitored using COMS are exempt from this condition. Additionally, baghouses controlling emissions from silos with dedicated bin vents, wet screening operations, bucket elevators, screw conveyors, bagging operations, and pneumatic conveyors are exempt from this condition provided those baghouses and respective emission units are not subject to CAM per 40 CFR 64.

The Permittee shall retain a record of the daily visible emissions (VE) log suitable for inspection and submittal. The check shall be conducted at least once for each day or portion of each day of operation using procedures a through d below except when atmospheric condition or sun positioning prevent any opportunity to perform the daily VE check. Any operational day when atmospheric conditions or sun position prevent a daily reading shall be reported as monitor downtime in the report required by Condition 7.13.
[391-3-1-.02(6)(b)1]

a. Determine, in accordance with the procedures specified in paragraph d of this condition, if visible emissions are present at the discharge point to the atmosphere from each of the sources and record the results in the daily (VE) log. For sources that exhibit visible emissions, the Permittee shall comply with paragraph b or c of this condition.

b. For each source determined to be emitting visible emissions, the Permittee shall determine whether the emissions equal or exceed the opacity action level using the procedure specified in paragraph d of this condition, except that the person performing the determination shall have received additional training acceptable to the Division to recognize the appropriate opacity level and the determination shall cover a period of three minutes. The opacity action level is 5 percent. The results shall be recorded in the daily (VE) log. For sources that exhibit visible emissions of greater than or equal to the opacity action level, the Permittee shall comply with paragraph c of this condition.

c. For each source that requires action in accordance with paragraphs a or b of this condition, the Permittee shall determine the cause of the visible emissions and correct the problem in the most expedient manner possible. The Permittee shall note the cause of the visible emissions, the pressure drop or any other pertinent operating parameters, and the corrective action taken in the maintenance log.

d. The person performing the determination shall stand at a distance of at least 15 feet, which is sufficient to provide a clear view of the plume against a contrasting background with the sun in the 140° sector at his/her back. Consistent with this requirement, the determination shall be made from a position such that the line of vision is approximately perpendicular to the plume direction. Only one plume shall be in the line of sight at any time when multiple stacks are in proximity to each other.

5.10 The Permittee shall implement a Preventive Maintenance Program for the baghouses specified in Condition 5.9 to assure that the provisions of Condition 2.16 are met. The Preventive Maintenance Program shall be submitted within 60 days of the effective date of startup of the Bubbling Fluidized Bed Boiler (Source Code: B001). All QA/QC practices and criteria shall be stated in the Preventive Maintenance Program. The program shall be subject to review and, if necessary to assure compliance, modification by the Division and shall include the pressure drop ranges that indicate proper operation for each baghouse. At a minimum, the following operation and maintenance checks shall be made on at least a weekly basis, and a record of the findings and corrective actions taken shall be kept in a maintenance log:
[391-3-1-.02(6)(b)1]

a. Record the pressure drop across each baghouse and ensure that it is within the appropriate range.

b. For baghouses equipped with compressed air cleaning systems, check the system for proper operation. This may include checking for low pressure, leaks, proper lubrication, and proper operation of timer and valves.

c. For baghouses equipped with reverse air cleaning systems, check the system for proper operation. This may include checking damper, bypass, and isolation valves for proper operation.

d. For baghouses equipped with shaker cleaning systems, check the system for proper operation. This may include checking shaker mechanism for loose or worn bearings, drive components, mountings; proper operation of outlet/isolation valves; proper lubrication.

e. Check dust collector hoppers and conveying systems for proper operation.

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 2.0 are as follows:

a. Method 1 shall be used for the determination of sample point locations.

b. Method 2 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 shall be used for the determination of stack gas moisture.

f. Method 6 or 6C for the determination of Sulfur Dioxide concentration.

g. Method 7 or 7E for the determination of Nitrogen Oxides emissions.

h. Method 9 for the determination of Opacity. Data from the COMS required by Condition 5.2 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.

i. Method 10 for the determination of Carbon Monoxide emissions.

j. Method 5 in conjunction with Method 202 shall be used to determine the total PM/PM_{10} Concentration for Source B001.

k. Method 201 or Method 201A shall be used to determine the filterable PM/PM_{10} Concentration for Source B001.

l. Other Test method 027 (OTM-027) in conjunction with Other Test Method 028 (OTM-028) shall be used to determine the total $PM_{2.5}$ Concentration for Source B001.

m. Method 26 or Method 26A shall be used to determine hydrogen chloride (HCl) concentrations; the sampling time for each run shall be one hour.

n. Method 19 when applicable, to convert the particulate matter (PM), carbon monoxide (CO), nitrogen oxides (NOx) 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).

o. Method 5 in conjunction with Method 202 shall be used to determine the total PM/PM_{10}, Method 201 or Method 201A shall be used to determine the filterable $PM/PM_{10,}$ and Other Test method 027 (OTM-027) in conjunction with Other Test Method 028 (OTM-028) shall be used to determine the total $PM_{2.5}$ Concentrations for the Sorbent Storage Silo, the Boiler Bed Sand Storage Silo, the Sand Day Storage Hopper, the Bottom Ash Storage, and the Fly Ash Storage Silo (Source Codes: SSS, BBSSS, SDSH, BASS, and FASS).

p. Method 22 shall be used to determine visible fugitive emissions.

q. NCASI Method A105.01 for the determination of Acrolein emissions.

r. Method 320 for the determination of Formaldehyde emissions.

s. Method 18 for the determination of Benzene emissions.

t. ASTM E871 or E870, or approved equivalent shall be used to determine biomass moisture content.

u. ASTM E711, or approved equivalent shall be used to determine the heat content of biomass.

v. ASTM E775, or approved equivalent shall be used to determine biomass sulfur content.

w. ASTM D4057 shall be used for collection of fuel oil samples.

x. Method 19, Section 12.5.2.2.3 shall be used for the determination of fuel oil sulfur content.

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 The Permittee shall use CEMS and COMS as the compliance determination method for the Bubbling Fluidized Bed Boiler (Source Code: B001) as follows:
[40 CFR 52.21, 391-3-1-.02(3), and 391-3-1-.03(2)(c)]

a. For the initial compliance test, NOx from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NOx emission standards under Condition 2.9. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

b. Following the date on which the initial performance test is completed or is required to be completed in Condition 6.3a., whichever date comes first, the Permittee shall determine compliance with the NOx emission standards in Condition 2.9 on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated for each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

c. For the initial compliance test, SO_2 from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the SO_2 emission standards under Condition 2.12. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

d. Following the date on which the initial performance test is completed or is required to be completed in Condition 6.3c., whichever date comes first, the Permittee shall determine compliance with the SO_2 emission standards in Condition 2.12 on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated for each steam generating unit operating day as the average of all of the hourly SO_2 emission data for the preceding 30 steam generating unit operating days.

e. For the initial compliance test, CO from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the CO emission standards under Condition 2.13. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

f. Following the date on which the initial performance test is completed or is required to be completed in Condition 6.3e., whichever date comes first, the Permittee shall determine compliance with the CO emission standards in Condition 2.13 on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated for each steam generating unit operating day as the average of all of the hourly CO emission data for the preceding 30 steam generating unit operating days.

6.4 Within 60 days after achieving the maximum production rate at which the sources will be operated, but no later than 180 days after the initial startup, the Permittee shall conduct performance testing using the testing methods in Condition 6.2 for the Bubbling Fluidized Bed Boiler (Source Code: B001) for PM/PM_{10} and $PM_{2.5}$ to verify compliance with Conditions 2.10 and 2.11 and furnish to the Division a written repot of the results of the performance test. The performance testing shall be done initially as within the earliest timeframe specified by 40 CFR 60, Subpart Db. Performance testing shall be conducted as frequently as the most frequent testing required by these regulations, or every twelve (12) months, at a minimum.
[40 CFR 60.46b, 391-3-1-.02(3) and 391-3-1-.03(2)(c)]

6.5 Within 180 days of the initial startup of the Bubbling Fluidized Bed Boiler (Source Code: B001), the Permittee shall conduct an initial performance test and annually thereafter for HCl emissions, using the test method specified in Condition 6.2, to determine compliance with Condition 2.21. Based on data collected through the performance testing, the Permittee shall determine HCl emission rate (in lbs/MMBTU) to demonstrate compliance with Condition 2.21.
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

6.6 Within 180 days of the initial startup of the Bubbling Fluidized Bed Boiler (Source Code: B001), the Permittee shall conduct an initial performance test for Acrolein, Benzene and Formaldehyde emissions, using the test method specified in Condition 6.2. Based on data collected through the performance testing, the Permittee shall use the results as approved emission factors (in lbs/MMBTU) for Acrolein, Benzene and Formaldehyde in Condition 7.16.b.
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

6.7 Within 180 days of the initial startup of the Bubbling Fluidized Bed Boiler (Source Code: B001), the Permittee shall conduct performance testing on Biomass unloading operation, Biomass processing building, Biomass transfer tower, Boiler building fuel transfer operations, and Longwood grinding for PM/PM_{10} and $PM_{2.5}$ to verify compliance with Condition 2.14 and furnish to the Division a written report of the results of the performance test.
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

6.8 Within 180 days of the initial startup of the Bubbling Fluidized Bed Boiler (Source Code: B001), the Permittee shall conduct performance testing on the Sorbent Storage Silo, Boiler Bed Sand Storage Silo, Sand Day Storage Hopper, Fly Ash Storage Silo, and Bottom Ash Storage Area (Source Codes: SSS, BBSSS, SDSH, FASS, and BASA) for PM/PM_{10} and $PM_{2.5}$ to verify compliance with Condition 2.15 and furnish to the Division a written report of the results of the performance test.
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

6.9 Within 60 days after achieving the maximum production rate at which the sources will be operated, but no later than 180 days after the initial startup, the Permittee shall conduct performance testing for visible emissions on the Sorbent Storage Silo (Source Code: SSS) in accordance with the procedures in 40 CFR 60.675(c)(2). The Permittee shall repeat the test every 5 years.
[40 CFR 60.675(f)]

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 The Permittee must submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with §60.672(b), (e), and (f). Such reports shall be submitted for review during the quarterly report required by Condition 7.4.
[40 CFR 60.676(f)]

7.3 The Permittee shall record each periodic inspection required under 40 CFR 60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The Permittee shall keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available for the Division upon request. For each bag leak detection system installed and operated according to 40 CFR 60.674(d), the Permittee shall keep the records specified in 40 CFR 60.676(b)(2) (i) through (iii).

The subpart A requirement under §60.7(a)(2) for notification of the date construction commenced is waived for affected facilities under 40 CFR 60, Subpart OOO.

The Permittee must submit notification of the actual date of initial startup of each affected facility to the Division.
[40 CFR 60.676(b), 40 CFR 60.676(h), and 40 CFR 60.676(i)]

7.4 The Permittee shall submit a quarterly compliance report, which contains the following information:
[391-3-1-.02(6)(b)1]

a. Company name and address

b. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

c. Date of report and beginning and ending dates of the reporting period.

d. The total fuel use by the Bubbling Fluidized Bed Boiler (Source Code: B001), for each calendar month within the reporting period, including, but not limited to, a description of each fuel and the total fuel usage amount with units of measure.

e. A summary of the results of the performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

f. A signed statement indicating that Permittee burned only biodiesel or biomass as defined in Condition 2.8 in the Bubbling Fluidized Bed Boiler (Source Code: B001).

g. A signed statement indicating that Permittee burned only ultra low sulfur distillate fuel oil in the Fire Water Pump Emergency Engines (Source Codes: FP01 and FP02).

h. If there are no deviations from any emission limits that apply, a statement indicating that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

i. The calculated monthly and consecutive 12-month rolling totals for nitrogen oxides (NOx), carbon monoxide (CO), and sulfur dioxide (SO_2) emissions from the Bubbling Fluidized Bed Boiler (Source Code: B001), for each month of the reporting period.

The first quarterly report must cover the period beginning on the compliance date and ending on March 31, June 30, September 30, or December 31, whichever date is the first date that occurs at the end of the quarter in which initial startup is completed. The quarterly report must be post marked or delivered no later by the 30th day following the end of each reporting period, April 30, July 30, October 30, and January 30, respectively. Each subsequent report must cover the reporting period from January 1 through March 31, April 1 through June 30, July 1 through September 30, or October 1 through December 31 and must be post marked or delivered no later than April 30, July 30, October 30, and January 30, respectively, whichever date is the first date following the end of the quarterly reporting period.

7.5 The Permittee shall determine compliance with the NOx emissions limitation in Conditions 2.9, 2.18, and 2.29 using emissions data acquired by the NOx CEMS. The 1-hour average, the 30-day rolling average, and the 12-month rolling totals shall be determined as follows: [40 CFR 52.21 and 391-3-1-.02(6)(b)1]

a. After the first 1-hour average, a new 1-hour average shall be calculated after each operating hour.

b. The 30-day average shall be the average of all valid hours of NOx emissions data for any 30 successive operating days.

c. After the first 30-day average, a new 30-day rolling average shall be calculated after each operating day.

d. For the purpose of this Permit, an operating day is a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time. It is not necessary for the fuel to be combusted continuously for the entire 24-hour period.

e. A 12-month rolling totals shall be the total for any 12 consecutive months.

These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.

7.6 The Permittee shall determine compliance with the SO_2 emissions limitation in Conditions 2.12, 2.20, and 2.30 using emissions data acquired by the SO_2 CEMS. The 1-hour average, the 30-day rolling average and, the 12-month rolling totals shall be determined as follows: [40 CFR 52.21 and 391-3-1-.02(6)(b)1]

a. After the first 1-hour average, a new 1-hour average shall be calculated after each operating hour.

b. The 30-day average shall be the average of all valid hours of SO_2 emissions data for any 30 successive operating days.

c. After the first 30-day average, a new 30-day rolling average shall be calculated after each operating day.

d. For the purpose of this Permit, an operating day is a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time. It is not necessary for the fuel to be combusted continuously for the entire 24-hour period.

e. A 12-month rolling totals shall be the total for any 12 consecutive months.

These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.

7.7 The Permittee shall determine compliance with the CO emissions limitation in Conditions 2.13 and 2.19 using emissions data acquired by the CO CEMS. The 30-day rolling average and 12-month rolling totals shall be determined as follows:
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

a. The 30-day average shall be the average of all valid hours of CO emissions data for any 30 successive operating days.

b. After the first 30-day average, a new 30-day rolling average shall be calculated after each operating day.

c. For the purpose of this Permit, an operating day is a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time. It is not necessary for the fuel to be combusted continuously for the entire 24-hour period.

d. A 12-month rolling totals shall be the total for any 12 consecutive months.

These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.

7.8 To demonstrate compliance with Condition 2.17, the Permittee shall maintain records documenting that the drift eliminator on the cooling tower CT01 has been designed to meet the applicable limit. Such records shall be submitted for review during the first quarterly report required by Condition 7.4.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

7.9 The Permittee shall record and maintain records of the amounts of each fuel, including fuel type, combusted during each day in the Bubbling Fluidized Bed Boiler (Source Code: B001) as required by Condition 5.4. The Permittee shall use these records to demonstrate compliance with Condition 2.8. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

7.10 The Permittee shall maintain the following records as they relate to the startup and shutdown of the Bubbling Fluidized Bed Boiler (Source Code: B001):
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

a. The number of startups per day; the hours attributed to the startup, and the hours attributed to shutdown. If Source B001 were not in operation on any given day, the records shall so note.

b. Identify startup of the pollution control systems – SNCR, BHB1, and DSI.

7.11 The Permittee shall maintain files of all measurements, including continuous monitoring systems, monitoring devices, and performance testing measurements; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices. These files shall be kept in a permanent form suitable for inspection and shall be maintained for a period of at least five (5) years following the date of such measurements, reports, maintenance and records.
[391-3-1-.02(6)(b)(1)]

7.12 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 that 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)]

7.13 The Permittee shall submit a written report containing any excess emissions, exceedances, and/or excursions as described in this permit and any monitor malfunctions for each quarterly period ending March 31, June 30, September 30, and December 31 of each year. All reports shall be postmarked by the 30th day following the end of each reporting period, April 30, July 30, October 30, and January 30, respectively. In the event that there have not been any excess emissions, exceedances, excursions or malfunctions during a reporting period, the report should so state. Otherwise, the contents of each report shall be as specified by the Division's Procedures for Testing and Monitoring Sources of Air Pollutants and shall contain the following:
[391-3-1-.02(6)(b)(1)]

a. A summary report of excess emissions, exceedances, and excursions, and monitor downtime, in accordance with Section 1.5(c) and (d) of the above referenced document, including any failure to follow required work practice procedures.

b. Total process operating time during each reporting period.

c. The magnitude of all excess emissions, exceedances, and excursions computed in accordance with the applicable definitions as determined by the Director, and any conversion factors used, and the date and time of the commencement and completion of each time period of occurrence.

d. Specific identification of each period of such excess emissions, exceedances, and excursions that occur during startups, shutdowns, or malfunctions of the affected facility. Include the nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.

e. The date and time identifying 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. When the monitoring system or device has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

f. Certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

7.14 The Permittee shall use the hour meters required by Condition 5.7 to determine and record the net operating hours the Fire Water Pump Emergency Engines (Source Codes: FP01 and FP02) during emergency and non-emergency service during every calendar month. The Permittee shall use these records to determine the total operating hours for each of these engines for the twelve consecutive month period ending with each calendar month. These records (including calculations) shall be maintained as part of the monthly record suitable for inspection or submittal. A twelve consecutive month total shall be the total for a month in the reporting period plus the totals for the previous eleven consecutive months.
[40 CFR 52.21, 40 CFR 60 Subpart IIII and 391-3-1-.02(6)(b)1]

7.15 The Permittee shall demonstrate compliance with the NSPS Subpart IIII emission limits for the Fire Water Pump Emergency Engines (Source Codes: FP01 and FP02), by purchasing certified engines. The engines shall be installed and configured according to the manufacturer/s specifications. These records shall be maintained in a format suitable for inspection or submittal.
[40 CFR 60.4211(c)]

7.16 The Permittee shall use the following equations to calculate the monthly HCl and Total HAP emissions from the Bubbling Fluidized Bed Boiler (Source Code: B001). 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 6.5 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:

$HAP_i = (EF_i)\ (R)\ (\text{Operating Hours}) / (2000\ \text{lb/ton})$

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 C of the Permit Application No. 19121 (Volume I) dated October 2009.

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

Operating Hours = Monthly hours of operation for the boiler.

c. Total HAPs emitted each month shall be calculated by adding the individual HAP emissions from b. and the total HCl emissions during the month.

7.17 The Permittee shall use the records required in Condition 7.16 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 7.4. 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 emissions limit in Condition 2.21.
[391-3-1-.02(6)(b)1]

7.18 Within 180 days of the facility initial startup, the Permittee shall submit a detailed example of the records required by Condition 7.16. This report shall provide the information (including calculations) necessary to demonstrate how the Permittee will track and record emissions of HAPs from the Bubbling Fluidized Bed Boiler (Source Code: B001).

[391-3-1-.02(6)(b)1 and 391-3-1-.03(2)(c)]

7.19 The Permittee shall verify that each shipment of biomass fuel received for combustion in the Bubbling Fluidized Bed Boiler (Source Code: B001) complies with the requirements of Condition 2.7. Verification shall consist of fuel receipts obtained from the fuel supplier certifying that the fuel is in compliance with the definition of biomass fuel of Condition 2.7. The Permittee shall retain records on site for a period of at least five years in a format suitable for inspection.
[391-3-1-.02(6)(b)1]

7.20 The Permittee shall submit a written report containing the following information for each quarterly period ending March 31, June 30, September 30, and December 31 of each year. All reports shall be postmarked by the 30th day following the end of each reporting period, April 30, July 30, October 30, and January 30, respectively. Reporting required by this condition shall begin at the end of the quarter in which initial startup is completed.
[40 CFR 52.21 and 391-3-1-.02(6)(b)1]

a. The maximum 1-hour NOx emission rate in lbs/MMBtu for the Bubbling Fluidized Bed Boiler (Source Code: B001) during the quarterly reporting period.

b. The maximum 1-hour SO_2 emission rate in lbs/MMBtu for the Bubbling Fluidized Bed Boiler (Source Code: B001) during the quarterly reporting period.

c. The 30-day average NOx emission rate in lbs/MMBtu from the Bubbling Fluidized Bed Boiler (Source Code: B001), for each 30-day average period that ends during the quarterly reporting period.

d. The 30-day average CO emission rate in lbs/MMBtu from the Bubbling Fluidized Bed Boiler (Source Code: B001), for each 30-day average period that ends during the quarterly reporting period.

e. The 30-day average SO_2 emission rate in lbs/MMBtu from the Bubbling Fluidized Bed Boiler (Source Code: B001), for each 30-day average period that ends during the quarterly reporting period.

f. The calculated monthly and consecutive 12-month rolling totals for hydrogen chloride (HCl) and total HAPS emissions from the entire facility, for each month of the reporting period.

g. The calculated monthly and consecutive 12-month rolling totals for carbon monoxide (CO), nitrogen oxides (NOx), and sulfur dioxide (SO_2) emissions from the Bubbling Fluidized Bed Boiler (Source Code: B001), for each month of the reporting period.

h. Fuel oil certifications for the Water Fire Pumps (Source Codes: FP01 and FP02) and a statement signed by a responsible official of the affected facility that the Permittee burned only ultra low sulfur diesel fuel oil during the quarter.

i. The type and amount of fuel burned in the Bubbling Fluidized Bed Boiler (Source Code: B001) during the reporting period.

7.21 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 7.13, the following excess emissions, exceedances, and excursions shall be reported:
[391-3-1-.02(6)(b)(1) and 40 CFR 52.21(j)]

a. Excess emissions: (means for the purpose of this Condition and Condition 7.13, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

i. None required to be reported in accordance with Condition 7.14.

b. Exceedances: (means for the purpose of this Condition and Condition 7.13, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring).

i. Any 1-hour average NOx emission rate which exceeds 0.28 lbs/MMBtu for the Bubbling Fluidized Bed Boiler (Source Code: B001).

ii. Any 1-hour average SO_2 emission rate which exceeds 0.095 lbs/MMBtu for the Bubbling Fluidized Bed Boiler (Source Code: B001).

iii. Any time any fuel other than biodiesel or biomass that does not meet the definition in Condition 2.7 is fired in Boiler B001.

iv. Any 30-day rolling NOx emission rate which exceeds 0.10 lbs/MMBtu from the Boiler B001.

v. Any 30-day rolling SO_2 emission rate which exceeds 0.010 lbs/MMBtu from the Boiler B001.

vi. Any 30-day rolling CO emission rate which exceeds 0.080 lbs/MMBtu from the Boiler B001.

vii. Any twelve consecutive month period in which the rolling sum of nitrogen oxides (NOx) emissions, from the Boiler B001 exceeds 648 tons.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21]

viii. Any twelve consecutive month period in which the rolling sum of sulfur dioxide (SO_2) emissions, from the Boiler B001 exceeds 56 tons.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21]

ix. Any twelve consecutive month period in which the rolling sum of carbon monoxide (CO) emissions, from the Boiler B001 exceeds 625 tons.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21]

x. Any time ultra low sulfur fuel oil combusted in the Water Fire Pump Emergency Engines (Source Codes: FP01 and FP02) and Longwood Mobile Chipper (Source Code: GRN3) exceeds 0.0015 percent by weight sulfur content.

xi. Any six-minute period during which the average opacity measured and recorded in accordance with Condition 5.2.b exceeds 20 percent, except one six-minute average per hour up to 27 percent, from Stack B001.

xii. Any twelve consecutive months total hours of operation from each Fire Water Pump Emergency Engines (Source Codes: FP01 and FP02), which exceeds 499 hours.
[391-3-1-.02(6)(b)1 and 40 CFR 52.21]

c. Excursions: (means for the purpose of this Condition and Condition 7.13, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring).

i. Any time any control equipment required in Section 4.0 of the permit is not in operation or is bypassed while applicable equipment is operating.

ii. Any 3-hour block average of sorbent injection flow rate for each sorbent used measured using the device(s) required by Condition 5.3.a that falls below 80 percent of the injection flow rate value established in accordance with the requirements of Condition 6.5.

iii. For sources specified in Condition 5.9, any two consecutive required daily determinations of visible emissions from the same source for which visible emissions are above the opacity action levels specified in Condition 5.9.b.

iv. Any weekly inspection of a baghouse as required by Condition 5.10 revealing a problem that is not resolved in accordance with the Preventive Maintenance Program.

v. Any determination of visible emissions made in accordance with Condition 5.8 that is not corrected in 24 hours.

7.22 The Permittee shall notify the Division within 30 days of removing the Longwood mobile chipper (Source Code: GRN3) from the facility.
[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".