PERMIT NO. 2499-075-0028-E-01-0
ISSUANCE DATE:

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Air Quality Permit

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:	**Spectrum Energy Georgia, LLC**
Facility Address:	**801 Cook Street** **Adel, Georgia 31620 (Cook County)**
Mailing Address:	**801 Cook Street** **Adel, Georgia 31620**
Facility AIRS Number:	**04-13-075-00028**

is issued a Permit for the following:

Construction and operation of a Wood Pellet Manufacturing Facility with two phases.

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. 28143 dated October 6, 2021; 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 **43** pages.

Richard E. Dunn, Director
Environmental Protection Division

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 cause, let, suffer, permit or allow emissions from the entire facility, which contain particulate matter (Total PM), volatile organic compounds (VOC), carbon monoxide (CO) or nitrogen oxide (NO_x), each, in an amount exceeding 249 tons during any twelve consecutive months.
[PSD Avoidance – 40 CFR 52.21]

2.2 The Permittee shall not cause, let, suffer, permit or allow emissions from the entire facility, which contain any single hazardous air pollutant (HAP) in an amount equal to or exceeding 10 tons during any twelve consecutive months, or any combination of such listed HAP in an amount equal to or exceeding 25 tons during any twelve consecutive months.
[Title V Avoidance for Single and Combined HAP]

2.3 The Permittee shall operate the wet electrostatic precipitator (ID No. WESP) and biofilter (BIO) during Phase I and the wet electrostatic precipitator (ID No. WESP) and regenerative thermal oxidizer (ID No. RTO) and biofilter (BIO) in Phase II during all periods in which the dryers are in operation during both phases.
[PSD Avoidance – 40 CFR 52.21 for $PM/PM_{10}/PM_{2.5}$ and VOC]

2.4 The Permittee shall operate all baghouses and cyclone during all periods in which the associate emission units are in operation.
[Avoidance of 40 CFR 52.21 for $PM/PM_{10}/PM_{2.5}$]

2.5 The Permittee shall not fire any fuel other than wood in the dryer burners.
[391-3-1-.03(2)(c); 391-3-1-.02(2)(g)2.(subsumed); and Georgia Air Toxic Guidelines]

2.6 The Permittee shall not fire any fuel other than natural gas in the regenerative thermal oxidizer (ID No. RTO) burner.
[391-3-1-.03(2)(c); 391-3-1-.02(2)(g)2.(subsumed); and Georgia Air Toxic Guidelines]

2.7 The Permittee shall not cause, let, suffer, permit, or allow any emissions from equipment subject to GA Rule (b), which exhibit visible emissions, the opacity of which is equal to or greater than forty (40) percent in both Phases.
[391-3-1-.02(2)(b)1.]

2.8 The Permittee shall not cause, let, suffer, permit, or allow the emission from equipment subject to GA Rule (e), which contains particulate matter (PM) in total quantities equal to or exceeding the allowable rate as calculated using the applicable equation below, unless otherwise specified in this Permit, in both Phases.
[391-3-1-.02(2)(e)1.(i)]

a. $E = 4.1 * P^{0.67}$; for process input weight rate up to and including 30 tons per hour.

b. $E = 55 * P^{0.11} - 40$; for process input weight rate above 30 tons per hour.

Where: E = allowable emission rate in pounds per hour;
P = process input weight rate in tons per hour.

2.9 The Permittee shall not cause, let, suffer, permit or allow emissions from the entire facility, which contain arsenic in an amount equal to or exceeding 0.0567 pound per year (lb/year).
[Georgia Air Toxics Guidelines]

2.10 The Permittee shall not cause, let, suffer, permit or allow emissions from the entire facility, which contain hexavalent chromium in an amount equal to or exceeding 0.0195 lb/year.
[Georgia Air Toxics Guidelines]

2.11 Upon the initial startup of Phase II, Conditions 5.2 through 5.8, 6.3 through 6.8, 7.5b.vi., 7.5c.ii. – 7.5c.vi., and 7.6 through 7.15 shall become null and void.
[PSD Avoidance – 40 CFR 52.21 and Georgia Air Toxics Guidelines]

3. Fugitive Emissions

3.1 The Permittee shall take all reasonable precautions to prevent fugitive dust from becoming airborne. Reasonable precautions that should be taken to prevent dust from becoming airborne include, but are not limited to, the following:
[391-3-1-.02(2)(n)1]

a. Periodic application of water on dirt roads, materials, stockpiles, and other surfaces that can give rise to airborne dusts. The frequency of application of water shall be determine by the facility based on the moisture content of the materials, recent rainfall, and the weather conditions at the facility. The facility shall keep a log of actions taken and make it available for inspection.

b. Sandblasting must be done indoors; if sandblasting is done outdoors facility will erect a temporary structure to contain the emissions from sandblasting operations.

c. Covering, at all times when in motion, open bodied trucks, transporting materials likely to give rise to airborne dusts.

d. The prompt removal of earth or other material from paved streets onto which earth or other material has been deposited.

e. Daily blow down of all interior equipment.

f. Daily cleaning of the floor to minimize dust accumulation on the floor.

3.2 The opacity from any fugitive dust source shall not equal or exceed 20 percent.
[391-3-1-.02(2)(n)2]

4. Process & Control Equipment

4.1 Routine maintenance shall be performed on all air pollution control equipment. Maintenance records shall be in a form suitable for inspection or submittal to the Division and shall be maintained for a period of five (5) years from date of entry.
[391-3-1-.02(6)(b)1(i)]

4.2 The Permittee shall maintain the combustion zone temperature of the regenerative thermal oxidizer (ID No. RTO) at 1,500 degrees Fahrenheit (1,500°F) until the performance test required by Condition 6.9 is completed.

After the performance test, the Permittee shall operate RTO with the combustion zone temperature at or above the minimum temperature set point established during the most recent performance test.
[391-3-1-.02(6)(b)1(i)]

5. Monitoring

5.1 Any monitoring system or device installed by the Permittee shall be in continuous operation except during calibration checks, zero and span adjustments or periods of repair. 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.]

Phase I

5.2 The Permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) for the measurement of VOC emission concentrations of the exhaust from the biofilter (ID No. BIO, via Stack S1). **The VOC CEMS shall be operated in accordance with the requirements for U.S. EPA's Performance Specification 8**.
[391-3-1-.02(6)(b)1]

5.3 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. 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]

a. A device for the measurement of total secondary voltage (kilovolts) of each field of the wet electrostatic precipitators (ID Nos. WESP1 – WESP4). Such device shall have a required accuracy of approximately 2%. Data shall be recorded hourly when the associated dryers and burners (ID Nos. BUR1 – BUR4 and DRY1 – DRY4) are in operation.

b. A device for the measurement of total secondary current (milliamps) of each field of the wet electrostatic precipitators (ID Nos. WESP1 – WESP4). Such device shall have a required accuracy of approximately 2%. Data shall be recorded hourly when the associated dryers and burners (ID Nos. BUR1 – BUR4 and DRY1 – DRY4) are in operation.

c. A device for the measurement of pressure drop across each baghouse (ID Nos. BGH1 – BGH5) and cyclone (ID No. CYC). Data shall be recorded weekly.

5.4 The Permittee shall, using the hourly secondary voltages and secondary currents, obtained in accordance with Conditions 5.3a. and b., and the following equation, determine and record the total secondary power for each field of the wet electrostatic precipitators (ID Nos. WESP1 – WESP4):
[391-3-1-.02(6)(b)1]

$$P_t = \sum_{i=1}^{n} (V_i \times I_i)$$

Where: P_t = Total ESP power (watts)
V_i = Secondary volts (kV), ESP field i
I_i = Secondary current (ma), ESP field I
n = Total number of fields

5.5 The Permittee shall, for each day or portion of a day that the biofilter (ID No. BIO, via Stack S1), baghouses (ID Nos. BGH4 and BGH5, via Stacks S3 and S4), or cyclone (ID No. CYC, via Stack S5) are operated, conduct a check of visible emissions from each control device. The Permittee shall retain a record in a daily visible emissions (VE) log suitable for inspection or submittal, upon request. Should the Permittee be unable to conduct the required VE check when atmospheric conditions or sun position prevent a daily reading, no VE check is required and the Permittee shall indicate such in the VE log. Any operational day when atmospheric conditions or sun position prevent a daily reading shall be reported semiannually as monitor downtime/excursion. The check shall be conducted using the following procedure:
[391-3-1-.02(6)(b)1]

a. Determine, in accordance with the procedures specified in paragraph c. 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. of this condition.

b. For each source that emits any visible emissions, 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, any other pertinent operating parameters, and the corrective action taken in the maintenance log.

c. The person performing the determination shall stand at a distance of at least three stack heights, with 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.

5.6 The Permittee shall implement a Preventive Maintenance Program (PMP) for the baghouses (ID Nos. BGH1 – BGH5). 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. 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.

b. 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.

c. 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, mounting; proper operation of outlet/isolation valves; proper lubrication.

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

5.7 The Permittee shall perform the following applicable operation and maintenance checks on the fuel dust silo cyclone (ID No. CYC) and retain a record suitable for inspection or submittal for each week or portion of each week of operation in both phases. A checklist or other similar log may be used for this purpose:
[391-3-1-.02(6)(b)1]

a. Check exterior of the units for holes in the body or evidence of malfunction in interior of the cyclone.

b. Check hopper for bridging and plugging.

c. Check particulate transfer device for proper operation to ensure dust removal. Any adverse condition discovered by this inspection shall be corrected in the most expedient manner possible. The Permittee shall record the incident as an excursion and note the corrective action taken.

5.8 The Permittee shall perform a check of visible emissions from the truck unloading, whole log pile, drum debarker, chipper, wood chip pile, and green chip screening. The Permittee shall retain a record in a daily visible emissions (VE) log suitable for inspection or submittal. The check shall be conducted at least once for each day or portion of each day of operation using procedures a. through c. below except when atmospheric conditions 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/excursion in the report required by Condition 7.5.
[391-3-1-.02(6)(b)1]

a. Determine if visible emissions are present at the discharge point to the atmosphere from each of the fugitive sources and record the results in the daily (VE) log.

b. For each source that emits visible emissions, 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, any other pertinent operating parameters, and the corrective action taken in the maintenance log.

Phase II

5.9 Upon the initial startup of Phase II, the Permittee shall install, calibrate, maintain, and operate a system to continuously monitor and record the indicated parameters on the following equipment. Each system shall meet the applicable performance specifications(s) of the Division's monitoring requirements.
[391-3-1-.02(6)(b)1]

a. The Permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) for the measurement of VOC emission concentrations of the exhaust from the biofilter (ID No. BIO, via Stack S2). **The VOC CEMS shall be operated in accordance with the requirements for U.S. EPA's Performance Specification 8**.

b. The Permittee shall install, calibrate, maintain, and operate a temperature indicator for the measurement of the combustion zone temperature of the regenerative thermal oxidizer (ID No. RTO). The temperature monitoring device shall have an accuracy of ±2% (°F). Data shall be recorded continuously when the associated dryers and burners (ID Nos. BUR5, BUR6, DRY5, and DRY6) are in operation. This data shall be used to calculate hourly averages of combustion zone temperature in RTO1. The hourly averages shall be used to calculate the 3-hour rolling average.

5.10 Upon the initial startup of Phase II, the Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. 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]

a. A device for the measurement of total secondary voltage (kilovolts) of each field of the wet electrostatic precipitators (ID Nos. WESP5 and WESP6). Such device shall have a required accuracy of approximately 2%. Data shall be recorded hourly when the associated dryers and burners (ID Nos. BUR5, BUR6, DRY5, and DRY6) are in operation.

b. A device for the measurement of total secondary current (milliamps) of each field of the wet electrostatic precipitators (ID Nos. WESP5 and WESP6). Such device shall have a required accuracy of approximately 2%. Data shall be recorded hourly when the associated dryers and burners (ID Nos. BUR5, BUR6, DRY5, and DRY6) are in operation.

c. A device for the measurement of pressure drop across each baghouse (ID Nos. BGH1 – BGH8) and cyclone (ID No. CYC). Data shall be recorded weekly.

5.11 Upon the initial startup of Phase II, the Permittee shall, using the hourly secondary voltages and secondary currents, obtained in accordance with Conditions 5.10a. and b., and the following equation, determine and record the total secondary power for each field of the wet electrostatic precipitators (ID Nos. WESP5 and WESP6):
[391-3-1-.02(6)(b)1]

$$P_t = \sum_{i=1}^{n} (V_i \times I_i)$$

Where: P_t = Total ESP power (watts)
V_i = Secondary volts (kV), ESP field i
I_i = Secondary current (ma), ESP field I
n = Total number of fields

5.12 Upon the initial startup of Phase II, the Permittee shall, for each day or portion of a day that the regenerative thermal oxidizer (ID No. RTO, via Stack S1), biofilter (ID No. BIO, via Stack S2), baghouses (ID Nos. BGH7 and BGH8, via Stacks S4 and S5), or cyclone (ID No. CYC, via Stack S6) are operated, conduct a check of visible emissions from each control device. The Permittee shall retain a record in a daily visible emissions (VE) log suitable for inspection or submittal, upon request. Should the Permittee be unable to conduct the required VE check when atmospheric conditions or sun position prevent a daily reading, no VE check is required and the Permittee shall indicate such in the VE log. Any operational day when atmospheric conditions or sun position prevent a daily reading shall be reported semiannually as monitor downtime/excursion. The check shall be conducted using the following procedure:
[391-3-1-.02(6)(b)1]

a. Determine, in accordance with the procedures specified in paragraph c. 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. of this condition.

b. For each source that emits any visible emissions, 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, any other pertinent operating parameters, and the corrective action taken in the maintenance log.

c. The person performing the determination shall stand at a distance of at least three stack heights, with 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.

5.13 Upon the initial startup of Phase II, the Permittee shall implement a Preventive Maintenance Program (PMP) for the baghouses (ID Nos. BGH1 – BGH8). 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. 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.

b. 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.

c. 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, mounting; proper operation of outlet/isolation valves; proper lubrication.

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

5.14 Upon the initial startup of Phase II, the Permittee shall perform the following applicable operation and maintenance checks on the fuel dust silo cyclone (ID No. CYC) and retain a record suitable for inspection or submittal for each week or portion of each week of operation in both phases. A checklist or other similar log may be used for this purpose:
[391-3-1-.02(6)(b)1]

a. Check exterior of the units for holes in the body or evidence of malfunction in interior of the cyclone.

b. Check hopper for bridging and plugging.

c. Check particulate transfer device for proper operation to ensure dust removal. Any adverse condition discovered by this inspection shall be corrected in the most expedient manner possible. The Permittee shall record the incident as an excursion and note the corrective action taken.

5.15 Upon the initial startup of Phase II, the Permittee shall develop and implement a Preventive Maintenance Program (PMP) for the regenerative thermal oxidizer (ID No. RTO) in order to assure that the provisions of Condition 1.1 are met. The program shall be subject to review and, if necessary, to assure compliance, modification by the Division. At a minimum, the following operation and maintenance checks shall be made on at least an annual 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. Clean burner.

b. Tighten burner valve linkage.

c. Visually inspect the combustion zone thermocouple, have thermocouple calibrated for proper operation.

d. Visually inspect the inlet and outlet pressure sensors, have sensors calibrated for proper operation.

e. Visually inspect crossflow for plugging on burner side. If crossflow is dirty remove and clean with hose and water.

f. Visually inspect chamber for cracks.

g. Visually inspect process fan rotor for warpage, cracking, abnormal noise, and free spin.

5.16 Upon the initial startup of Phase II, the Permittee shall perform a check of visible emissions from the truck unloading, whole log pile, drum debarker, chipper, wood chip pile, and green chip screening. The Permittee shall retain a record in a daily visible emissions (VE) log suitable for inspection or submittal. The check shall be conducted at least once for each day or portion of each day of operation using procedures a. through c. below except when atmospheric conditions 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/excursion in the report required by Condition 7.5. [391-3-1-.02(6)(b)1]

c. Determine if visible emissions are present at the discharge point to the atmosphere from each of the fugitive sources and record the results in the daily (VE) log.

d. For each source that emits visible emissions, 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, any other pertinent operating parameters, and the corrective action taken in the maintenance log.

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.

a. 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:
[391-3-1-.02(3)(a)]

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

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

c. Method 3 or 3A shall be used for the determination of stack gas molecular weight. Method 3B shall be used for the determination of emission rate correction factor or excess air. Method 3A may be used as an alternative.

d. Method 4 shall be used for the determination of stack gas moisture.

e. Method 5 for the determination of particulate matter emissions. For sources controlled by baghouse/fabric filter Method 5D may be used as an alternative method.

f. Method 5 in conjunction with Method 202 for the determination of Total PM. Method 201A in conjunction with Method 202 can be used as an alternative for Total PM.

g. Method 7 or 7E shall be used for determination of NOx emissions.

h. Method 9 and the procedures of the above referenced document shall be used to determine the opacity.

i. Method 10 shall be used for the determination of CO concentrations.

j. Method 19 shall be used when applicable; to convert particulate matter, carbon monoxide, and nitrogen oxides concentrations (i.e., grains/dscf for PM, ppm for gaseous pollutants), as determined using other methods specified in this section, to mass emission rates (i.e., lb/MM Btu, lb/hr).

k. Method 26 or 26A shall be used to determine Hydrogen Chloride emission concentrations.

l. EPA OTM-26 (Interim VOC Measurement Protocol for the Wood Products Industry – July 2007) or "WPP1 VOC" (Wood Products Protocol 1 VOC) shall be used for the calculation and summation of VOC emissions.

   i. Method 25A shall be used for the determination of VOC concentrations.

   ii. NCASI 99.02 or Method 308 shall be used for the determination of methanol concentrations.

   iii. NCASI 99.02 or Method 316 or NCASI 98.01 or shall be used for the determination of formaldehyde concentrations.

   iv. NCASI 99.02 or SW 846 Method 0011 shall be used for the determination of acetaldehyde concentrations.

   v. NCASI 105.01 shall be used for the determination of wood product organic HAP emissions.

m. Method 29 shall be used for the determination of arsenic and chromium emissions.

Minor changes in methodology may be specified or approved by the Director or his designee when necessitated by process variables, changes in facility design, or improvement or corrections that, in his opinion, render those methods or procedures, or portions thereof, more reliable.

Phase I

6.3 The Permittee shall conduct the following initial performance testing within 180 days after the initial startup of the associated emission units and control devices in **Phase I**. The test shall be conducted at the maximum operating capacities of all the associated emission units and control devices.
[391-3-1-.02(6)(b)1(i)]

a. Nitrogen Oxides (NOx)

i. The burners (ID Nos. BUR1 – BUR4) and dryers (ID Nos. DRY1 – DRY4)

Test at the biofilter (ID No. BIO) outlet (Stack ID No. S1). The test results shall be recorded in pounds NOx per million Btu of total heat input into BUR1 – BUR4 (lbs NOx/MMBtu), combined.

b. Carbon Monoxide (CO)

i. The burners (ID Nos. BUR1 – BUR4) and dryers (ID Nos. DRY1 – DRY4)

Test at the biofilter (ID No. BIO) outlet (Stack ID No. S1). The test results shall be recorded in pounds CO per million Btu of total heat input into BUR1 – BUR4 (lbs CO/MMBtu), combined.

c. Volatile Organic Compounds (VOC)

i. The dryers (ID Nos. DRY1 – DRY4), dry wood silos (ID Nos. DWS1 and DWS2), dry hammermills (ID Nos. DHM1 and DHM2), pellet mills (ID Nos. PM1 – PM16), and pellet coolers (ID Nos. COOL1 and COOL2)

Test at the biofilter (ID No. BIO) outlet (Stack ID No. S1). The test results shall be recorded in pounds VOC per ton wood processed by COOL1 and COOL2, combined.

d. Total Particulate Matter (filterable and condensable PM)

i. The dryers (ID Nos. DRY1 – DRY4), dry wood silos (ID Nos. DWS1 and DWS2), dry hammermills (ID Nos. DHM1 and DHM2), pellet mills (ID Nos. PM1 – PM16), and pellet coolers (ID Nos. COOL1 and COOL2)

Test at the biofilter (ID No. BIO) outlet (Stack ID No. S1). The test results shall be recorded in pounds Total PM per ton wood processed by COOL1 and COOL2, combined.

ii. Sizing/Screening/Transport 1 (ID No. SST1)

Test at Baghouse BGH4 outlet (Stack ID No. S3). The test results shall be recorded in pounds per hour (lbs/hr).

iii. Sizing/Screening/Transport 2 (ID No. SST2)

Test at Baghouse BGH5 outlet (Stack ID No. S4). The test results shall be recorded in lbs/hr.

iv. The fuel dust silo

Test ar Cyclone CYC outlet (Stack ID No. S5). The test results shall be recorded in lbs/hr.

e. Hazardous Air Pollutants (Acetaldehyde, Acrolein, Formaldehyde, Hydrogen chloride, Methanol, Phenol, Propionaldehyde; and Other HAPs)

i. The dryers (ID Nos. DRY1 – DRY4), dry wood silos (ID Nos. DWS1 and DWS2), dry hammermills (ID Nos. DHM1 and DHM2), pellet mills (ID Nos. PM1 – PM16), and pellet coolers (ID Nos. COOL1 and COOL2)

Test at the biofilter (ID No. BIO) outlet (Stack ID No. S1). The test results shall be recorded in pounds HAP per ton wood processed by COOL1 and COOL2, combined.

ii. Finished Pellet Silos 1-8 (ID Nos. SILO1 – SILO8)

Choose one of the silos that just received fresh pellets and test its stack. The test results shall be recorded in pounds HAP per ton wood loaded into the silo.

f. Arsenic (As) and Hexavalent Chromium (Cr VI)

i. The burners (ID Nos. BUR1 – BUR4)

Test at the biofilter (ID No. BIO) outlet (Stack ID No. S1). The test results shall be recorded in pounds As or Cr VI per ton wood processed by DRY1 – DRY4, combined.

6.4 The Permittee shall repeat the performance tests specified in Condition 6.3, except Conditions 6.3c.i. and 6.3f.i., according to the following schedule:
[391-3-1-.02(6)(b)1.(i)]

a. Subsequent performance tests shall be conducted no more than 37 months after the previous performance test.

b. If any test results are less than 50 percent of the associated emission rates specified in Tables 7.8, 7.9, 7.11, or 7.12, the Permittee may opt to conduct the subsequent test for that pollutant from the associated stack/outlet no more than 61 months after the previous performance test.

c. If any test results of the 5-yr testing per Paragraph b. are 50 percent and up of the associated emission rates specified in Tables 7.8, 7.9, 7.11, or 7.12, then the Permittee shall resume the 3-yr test requirements specified in Paragraph a.

6.5 For the performance testing required in Conditions 6.3 and 6.4:
[391-3-1-.02(6)(b)1(i)]

a. The Permittee shall conduct the NOx and CO testing for the same emission units and control devices simultaneously.

b. The Permittee shall conduct the VOC and HAP testing for the same emission units and control devices simultaneously.

c. The Permittee shall monitor and record the process weight input rate for the dryers (ID No. DRY1 – DRY4), pellet coolers (ID Nos. COOL1 and COOL2), and tested pellet storage silo (ID Nos. SILO1 – SILO8).

d. The Permittee shall monitor and record the total secondary power of each field of the wet electrostatic precipitator (ID No. WESP1 – WESP4) during the Total PM testing.

e. The Permittee shall monitor and record the pressure drop across each baghouse (ID Nos. BGH1 – BGH5).

f. The Permittee shall monitor and record the pressure drop across the cyclone (ID No. CYC).

6.6 The Permittee shall use the results of the most recent performance testing specified in Conditions 6.3 and 6.4 and the records recorded in accordance with Condition 6.5c. to document the following emission factors (E.F.).
[391-3-1-.02(6)(b)1(i)]

a. NOx E.F. for Stack S1, in lbs NOx/MMBtu.

b. CO E.F. for Stack S1, in lbs CO/MMBtu.

c. VOC E.F. for Stack S1, in lbs VOC/ton wood.

d. Total PM E.F. for Stack S1, in lbs Total PM/ton wood.

e. Total PM E.F. for Stack S3, in lbs/hr.

f. Total PM E.F. for Stack S4, in lbs/hr.

g. Total PM E.F. for Stack S5, in lbs/hr.

h. HAP (Acetaldehyde, Acrolein, Formaldehyde, Hydrogen chloride, Methanol, Phenol, Propionaldehyde; and Other HAPs) E.F. for Stack S1, in lbs HAP/ton wood.

i. HAP (Acetaldehyde, Acrolein, Formaldehyde, Hydrogen chloride, Methanol, Phenol, Propionaldehyde; and Other HAPs) E.F. for the finished pellet silos (ID Nos. SILO1 – SILO8), in lbs HAP/ton wood.

j. Arsenic and hexavalent chromium E.F. for Stack S1, in lbs As or Cr VI per ton wood.

For the emission factors in the unit of lbs/hr, if any of the most recent tests are conducted at a capacity lower than the maximum/design capacity, the test results must be adjusted proportionally to show the emission rates at the maximum/design capacity.

6.7 If any outlet/stack emission rates recorded in accordance with Condition 6.6 exceed the corresponding emission factors currently being used in Conditions 7.8 through 7.14, then the Permittee shall calculate the emissions for that pollutant using the new and higher outlet/stack emission factors starting on the test date. The Permittee shall also submit a permit application within 180 days after testing, either requesting the higher emission factors or demonstrating that the emission factors derived are not representative of normal emissions.
[391-3-1-.02(6)(b)1(i)]

6.8 The Permittee shall establish the following monitoring parameter set points using the records obtained in accordance with Conditions 6.5d. thru f., during the most recent performance tests.
[391-3-1-.02(6)(b)1(i)]

a. The minimum total secondary power for WESP1 – WESP4, in watts (W).

b. The minimum pressure drop across each baghouse (ID Nos. BGH1 – BGH5).

c. The minimum pressure drop across the cyclone (ID No. CYC).

Phase II

6.9 The Permittee shall conduct the following initial performance testing within 180 days after the initial startup of the associated emission units and control devices in **Phase II**. The test shall be conducted at the maximum operating capacities of all the associated emission units and control devices.
[391-3-1-.02(6)(b)1(i)]

a. Nitrogen Oxides (NOx)

i. The burners (ID Nos. BUR5 and BUR6) and dryers (ID Nos. DRY5 and DRY6)

Test at the regenerative thermal oxidizer (ID No. RTO) outlet (Stack ID No. S1). The test results shall be recorded in pounds NOx per million Btu of total heat input into BUR5 and BUR6 (lbs NOx/MMBtu), combined.

b. Carbon Monoxide (CO)

i. The burners (ID Nos. BUR5 and BUR6) and dryers (ID Nos. DRY5 and DRY6)

Test at both the regenerative thermal oxidizer (ID No. RTO) inlet and outlet. The test results shall be recorded in pounds CO per million Btu of total heat input into BUR5 and BUR6 (lbs CO/MMBtu), combined.

c. Volatile Organic Compounds (VOC)

i. The dryers (ID Nos. DRY5 and DRY6)

Test at both the regenerative thermal oxidizer (ID No. RTO) inlet and outlet. The test results shall be recorded in pounds VOC per ton wood processed by DRY5 and DRY6 (lbs VOC/ton wood), combined.

ii. The dry wood silos (ID Nos. DWS1 and DWS2), dry hammermills (ID Nos. DHM1 – DHM6), pellet mills (ID Nos. PM1 – PM32), and pellet coolers (ID Nos. COOL1 – COOL4)

Test at the biofilter (ID No. BIO) outlet (Stack ID No. S2). The test results shall be recorded in pounds VOC per ton wood processed by COOL1 – COOL4 combined.

d. Particulate Matter (Total PM)

i. The dryers (ID Nos. DRY5 and DRY6)

Test at the regenerative thermal oxidizer (ID No. RTO) outlet (Stack ID No. S1). The test results shall be recorded in pounds Total PM per ton wood processed by DRY5 and DRY6 (Total PM/ton wood), combined.

ii. The dry wood silos (ID Nos. DWS1 and DWS2), dry hammermills (ID Nos. DHM1 – DHM6), pellet mills (ID Nos. PM1 – PM32), and pellet coolers (ID Nos. COOL1 – COOL4)

Test at the biofilter (ID No. BIO) outlet (Stack ID No. S2). The test results shall be recorded in pounds Total PM per ton wood processed by COOL1 – COOL4, combined.

iii. Sizing/Screening/Transport 1 (ID No. SST1)

Test at Baghouse BGH7 outlet (Stack ID No. S4). The test results shall be recorded in pounds per hour (lbs/hr).

iv. Sizing/Screening/Transport 2 (ID No. SST2)

Test at Baghouse BGH5 outlet (Stack ID No. S5). The test results shall be recorded in lbs/hr.

v. The fuel dust silo

Test ar Cyclone CYC outlet (Stack ID No. S6). The test results shall be recorded in lbs/hr.

e. Hazardous Air Pollutants (Acetaldehyde, Acrolein, Formaldehyde, Hydrogen chloride, Methanol, Phenol, Propionaldehyde; and Other HAPs)

i. The dryers (ID Nos. DRY5 and DRY6)

Test at both the regenerative thermal oxidizer (ID No. RTO) inlet and outlet. The test results shall be recorded in pounds VOC per ton wood processed by DRY5 and DRY6 (lbs HAP/ton wood), combined.

ii. The dry wood silos (ID Nos. DWS1 and DWS2), dry hammermills (ID Nos. DHM1 – DHM6), pellet mills (ID Nos. PM1 – PM32), and pellet coolers (ID Nos. COOL1 – COOL4)

Test at the biofilter (ID No. BIO) outlet (Stack ID No. S2). The test results shall be recorded in pounds HAP per ton wood processed by COOL1 – COOL4, combined.

iii. Finished Pellet Silos 1-16 (ID Nos. SILO1 – SILO16)

Choose one of the silos that just received fresh pellets and test its stack. The test results shall be recorded in pounds HAP per ton wood loaded into the silo.

f. Arsenic (As) and Hexavalent Chromium (Cr VI)

i. The burners (ID Nos. BUR5 and BUR6)

Test at the regenerative thermal oxidizer (ID No. RTO) outlet (Stack ID No. S1). The test results shall be recorded in pounds As or Cr VI per ton wood processed by DRY5 and DRY6 (lbs NOx/ton wood), combined.

6.10 The Permittee shall repeat the performance tests specified in Condition 6.9, except Conditions 6.9c.ii. and 6.9f.i., according to the following schedule:
[391-3-1-.02(6)(b)1.(i)]

a. Subsequent performance tests shall be conducted no more than 37 months after the previous performance test.

b. If any test results are less than 50 percent of the associated emission rates specified in Tables 7.18 through 7.22, the Permittee may opt to conduct the subsequent test for that pollutant from the associated stack/outlet no more than 61 months after the previous performance test.

c. If any test results of the 5-yr testing per Paragraph b. are 50 percent and up of the associated emission rates specified in Tables 7.18 through 7.22, then the Permittee shall resume the 3-yr test requirements specified in Paragraph a.

6.11 For the performance testing required in Conditions 6.9 and 6.10:
[391-3-1-.02(6)(b)1(i)]

a. The Permittee shall conduct the NOx and CO testing for the same emission units and control devices simultaneously.

b. The Permittee shall conduct the VOC and HAP testing for the same emission units and control devices simultaneously.

c. The Permittee shall monitor and record the process weight input rate for the dryers (ID No. DRY5 and DRY6), pellet coolers (ID Nos. COOL1 – COOL4), and tested pellet storage silo (ID Nos. SILO1 – SILO16).

d. The Permittee shall monitor and record the combustion zone temperature of the regenerative thermal oxidizer (ID No. RTO) during the CO, VOC, and HAP testing.

e. The Permittee shall monitor and record the total secondary power of each field of the wet electrostatic precipitator (ID No. WESP5 and WESP6) during the Total PM testing.

f. The Permittee shall monitor and record the pressure drop across each baghouse (ID Nos. BGH1 – BGH8).

g. The Permittee shall monitor and record the pressure drop across the cyclone (ID No. CYC).

6.12 The Permittee shall use the results of the most recent performance testing specified in Conditions 6.9 and 6.10 and the records recorded in accordance with Condition 6.11c. to document the following emission factors (E.F.).
[391-3-1-.02(6)(b)1(i)]

a. NOx E.F. for Stack S1, in lbs NOx/MMBtu.

b. CO E.F. for the RTO inlet and outlet, in lbs CO/MMBtu.

c. CO destruction/removal efficiency (DRE_{CO}) for RTO.

DRE (%) = (Inlet E.F. – Outlet E.F.) * 100 / (Inlet E.F.)

d. VOC E.F. for the RTO inlet and outlet, in lbs VOC/ton wood.

e. VOC destruction/removal efficiency (DRE_{VOC}) for RTO.

f. VOC E.F. for Stack S2, in lbs VOC/ton wood.

g. Total PM E.F. for Stack S1, in lbs Total PM/ton wood.

h. Total PM E.F. for Stack S2, in lbs Total PM/ton wood.

i. Total PM E.F. for Stack S4, in lbs/hr.

j. Total PM E.F. for Stack S5, in lbs/hr.

k. Total PM E.F. for Stack S6, in lbs/hr.

l. HAP (Acetaldehyde, Acrolein, Formaldehyde, Hydrogen chloride, Methanol, Phenol, Propionaldehyde; and Other HAPs) E.F. for the RTO inlet and outlet, in lbs HAP/ton wood.

m. HAP (Acetaldehyde, Acrolein, Formaldehyde, Hydrogen chloride, Methanol, Phenol, Propionaldehyde; and Other HAPs) destruction/removal efficiency (DRE_{HAP}) for RTO.

n. HAP (Acetaldehyde, Acrolein, Formaldehyde, Hydrogen chloride, Methanol, Phenol, Propionaldehyde; and Other HAPs) E.F. for Stack S2, in lbs HAP/ton wood.

i. HAP (Acetaldehyde, Acrolein, Formaldehyde, Hydrogen chloride, Methanol, Phenol, Propionaldehyde; and Other HAPs) E.F. for the finished pellet silos (ID Nos. SILO1 – SILO16).

j. Arsenic and hexavalent chromium E.F. for Stack S1, in lbs As or Cr VI per ton wood.

For the emission factors in the unit of lbs/hr, if any of the most recent tests are conducted at a capacity lower than the maximum/design capacity, the test results must be adjusted proportionally to show the emission rates at the maximum/design capacity.

6.13 If any outlet/stack emission rates recorded in accordance with Condition 6.12 exceed the corresponding emission factors currently being used in Conditions 7.18 through 7.24, then the Permittee shall calculate the emissions for that pollutant using the new and higher outlet/stack emission factors starting on the test date. If any destruction/removal efficiency (DRE) recorded in accordance with Condition 6.12e. and m. is below the corresponding DRE value in Condition 7.20 and 7.22, then the Permittee shall calculate the emissions for that pollutant using the new and lower DRE value starting on the test date. The Permittee shall also submit a permit application within 180 days after testing, either requesting the higher emission factors and/or the lower DRE value or demonstrating that the emission factors or DRE value derived are not representative of normal emissions.
[391-3-1-.02(6)(b)1(i)]

6.14 The Permittee shall establish the following monitoring parameter set points using the records obtained in accordance with Conditions 6.5d. thru g., during the most recent performance tests.
[391-3-1-.02(6)(b)1(i)]

a. The minimum total secondary power for WESP5 and WESP6, in watts (W).

b. The minimum RTO combustion zone temperature, in °F.

c. The minimum pressure drop across each baghouse (ID Nos. BGH1 – BGH8).

d. The minimum pressure drop across the cyclone (ID No. CYC).

7. Notification, Reporting and Record Keeping Requirements

7.1 The Permittee shall submit written notification of startup to the Division within 15 days after such dates for **Phases I and II**. The notification shall be submitted to:

Mr. Sean Taylor
Stationary Source Compliance Program
4244 International Parkway, Suite 120
Atlanta GA 30354

7.2 The Permittee shall maintain files of all required measurements, including continuous monitoring systems, monitoring devices, and performance testing measurements; all continuous monitoring system or monitoring device calibration checks; and 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-.03(10)(d)1(i)]

7.3 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)]

7.4 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 semiannual period ending June 30 and December 31 of each year. All reports shall be postmarked by August 29 and February 28, respectively following each reporting period.

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) and 40 CFR 60.48c(c)]

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.

7.5 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 7.4, the following excess emissions, exceedances, and excursions shall be reported:
[391-3-1-.02(6)(b)(1)]

a. Excess emissions: (means for the purpose of this Condition and Condition 7.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

None required to be reported in accordance with Condition 7.4.

b. Exceedances: (means for the purpose of this Condition 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 consecutive twelve month total of any NOx, CO, VOC, or Total PM emissions from the entire facility, determined and recorded in accordance with Conditions 7.15a. through d. or 7.25a. through d., in excess of 249 tons.

ii. Any consecutive twelve month total of any individual Hazardous Air Pollutant (HAP) emissions from the entire facility, determined and recorded in accordance with Conditions 7.15e. or 7.25e. equal to or in excess of 10 tons.

iii. Any consecutive twelve month total of any combined HAP emissions from the entire facility, determined and recorded in accordance with Conditions 7.15f. or 7.25f., equal to or in excess of 25 tons.

iv. Any consecutive twelve month total of arsenic emissions from the entire facility, determined and recorded in accordance with Conditions 7.15g. or 7.25g., equal to or in excess of 0.0567 pounds.

v. Any consecutive twelve month total of hexavalent chromium emissions from the entire facility, determined and recorded in accordance with Conditions 7.15h. or 7.25h., equal to or in excess of 0.0567 pounds.

vi. Any 30-day rolling average VOC emission rate of the biofilter (ID No. BIO) in **Phase I** exceeds the VOC emission factor listed in Condition 7.10.

vii. Any 30-day rolling average VOC emission rate of the biofilter (ID No. BIO) in **Phase II** exceeds the VOC emission factor listed in Condition 7.20.

viii. Any period in which any fuel other than wood is burned in any dryer burners.

ix. Any period in which any fuel other than natural gas is burned in the RTO burners.

c. Excursions: (means for the purpose of this Condition, 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 adverse condition regarding fugitive dust emissions as required per Conditions 3.1 and 3.2.

Phase I

ii. Any two consecutive day during which visible emissions are observed per Condition 5.5.

iii. Any two consecutive day during which fugitive visible emissions are observed per Condition 5.8.

iv. Any failure to perform the daily VE check per Condition 5.5 and/or Condition 5.8.

v. Any three-hour average total secondary power for the wet electrostatic precipitators (ID Nos. WESP1 – WESP4) measured and recorded per Conditions 5.3a., 5.3b., and 5.4 that is less than 80 percent of the value established in accordance with Condition 6.8a. Prior to any performance testing, the Permittee shall follow the manufacturer recommended total secondary power range for WESP1 – WESP4.

vi. Any weekly pressure drop readings recorded in accordance with Condition 5.3c. is below the associated minimum pressure drop established in accordance with Conditions 6.8b. and 6.8c. Prior to any performance testing, the Permittee shall follow the manufacturer recommended pressure drop range for BGH1 – BGH5 and CYC.

Phase II

vii. Any two consecutive day during which visible emissions are observed per Condition 5.12.

viii. Any two consecutive day during which fugitive visible emissions are observed per Condition 5.16.

ix. Any failure to perform the daily VE check per Condition 5.12 and/or Condition 5.16.

x. Any three-hour average total secondary power for the wet electrostatic precipitators (ID Nos. WESP5 and WESP6) measured and recorded per Conditions 5.10a.,

5.10b., and 5.11 that is less than 80 percent of the value established in accordance with Condition 6.14a. Prior to any performance testing, the Permittee shall follow the manufacturer recommended total secondary power range for WESP5 and WESP6.

xi. Any three-hour average RTO combustion zone temperature measured and recorded per Condition 5.9b. that is below the minimum combustion zone temperature established in accordance with Condition 6.14b. The minimum three-hour average RTO combustion zone temperature before the initial performance testing is 1,500°F.

xii. Any weekly pressure drop readings recorded in accordance with Condition 5.10c. is below the associated minimum pressure drop established in accordance with Conditions 6.14c. and 6.14d. Prior to any performance testing, the Permittee shall follow the manufacturer recommended pressure drop range for BGH1 – BGH8 and CYC.

Phase I

7.6 The Permittee shall maintain the following monthly records. The records shall be retained in a permanent form suitable and available for inspection or submittal to the Division upon request. These records shall be retained for at least five years following the day of record. [391-3-1-.02(6)(b)(1)]

a. The amount of wood, in tons, processed through the dryers (ID No. DRY1 – DRY4), combined.

b. The amount of wood, in tons, processed through the pellet coolers (ID Nos. COOL1 and COOL2), combined.

c. The amount of wood, in tons, processed through the finished pellet silos (ID Nos. SILO1 – SILO8), combined.

d. The amount of wet wood, in tons, burned in the burners (ID Nos. BUR1 – BUR4), combined. The Permittee shall convert the ton/month wet wood burned into the total heat input rate into BUR1 – BUR4, combined, in the unit of MMBtu/month with wet wood.

e. The amount of dry wood, in tons, burned in the burners (ID Nos. BUR1 – BUR4), combined. The Permittee shall convert the ton/month dry wood burned into the total heat input rate into BUR1 – BUR4, combined, in the unit of MMBtu/month with dry wood.

7.7 The Permittee shall maintain the following monthly records. The records shall be retained in a permanent form suitable and available for inspection or submittal to the Division, upon request. These records shall be retained for at least five years following the day of record. [391-3-1-.02(6)(b)(1)]

a. The total hours per month that Sizing/Screening/Transport SST1 is in operation.

b. The total hours per month that Sizing/Screening/Transport SST2 is in operation.

c. The total hours per month that the fuel dust silo is in operation.

7.8 The Permittee shall calculate and record the amount of NOx emissions from the entire facility in each calendar month, using the following equation: [391-3-1-.02(6)(b)1.]

$$ER_{NOx} = (EF_{NOx/S1} * H_B) / 2{,}000$$

Where:

ER_{NOx}	=	Monthly NOx emission rate from the entire facility, in tons per month.
$EF_{NOx/S1}$	=	NOx emission factor for Stack S1, in lbs NOx/MMBtu.
H_B	=	Monthly combined heat input into BUR1 – BUR4, combined, determined and recorded in accordance with Conditions 7.6d. and e.
2,000	=	Conversion Factor to Convert Pound into Ton.

The Permittee shall calculate NOx emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.3a.i. and 6.4 reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.7.

Table 7.9: NOx Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)
	BUR1 – BUR4
NOx	0.194 lb/MMBtu

The Permittee shall use the monthly records to calculate the facility-wide NOx emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide NOx emissions exceed 20.75 tons 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 NOx emission limitation in Condition 2.1.

7.9 The Permittee shall calculate and record the amount of CO emissions from the entire facility in each calendar month, using the following equation:
[391-3-1-.02(6)(b)1.]

$ER_{CO} = (EF_{CO/S1} * H_B) / 2{,}000$

Where:

ER_{CO}	=	Monthly CO emission rate from the entire facility, in tons per month.
$EF_{CO/S1}$	=	CO emission factor for Stack S1, in lbs CO//MMBtu.
H_B	=	Monthly combined heat input into BUR1 – BUR4, combined, determined and recorded in accordance with Conditions 7.6d. and e.
2,000	=	Conversion Factor to Convert Pound into Ton.

The Permittee shall calculate CO emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.3b.i. and 6.4 reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.7.

Table 7.10: CO Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)
	BUR1 – BUR4
CO	0.194 lb/MMBtu

The Permittee shall use the monthly records to calculate the facility-wide CO emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide CO emissions exceed 20.75 tons 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 CO emission limitation in Condition 2.1.

7.10 The Permittee shall calculate and record the amount of VOC emissions from the entire facility in each calendar month, using the following equation:
[391-3-1-.02(6)(b)1.]

$ER_{VOC} = (EF_{VOC/S1} * W_{COOL}) / 2{,}000$

Where:

ER_{VOC}	=	Monthly VOC emission rate from the entire facility, in tons per month.
$EF_{VOC/S1}$	=	VOC emission factor for Stack S1, in lbs VOC/ton wood.
W_{COOL}	=	Monthly throughput of COOL1 and COOL2, combined, determined and recorded in accordance with Condition 7.6b.
2,000	=	Conversion Factor to Convert Pound into Ton.

The Permittee shall calculate VOC emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.3c.i. and 6.4 reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.7.

Table 7.11: VOC Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)
	DRY1 – DRY4 / DWS1 & DWS2 / DHM1 & DHM2 / PM1 – PM16 / COOL1&2
VOC	0.745 lb / ton wood

The Permittee shall use the monthly records to calculate the facility-wide VOC emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide VOC emissions exceed 20.75 tons 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 VOC emission limitation in Condition 2.1.

7.11 The Permittee shall calculate and record the amount of Total PM emissions from the entire facility in each calendar month, using the following equation:
[391-3-1-.02(6)(b)1.]

$$ER_{PM} = [(EF_{PM/S1} * W_{COOL}) + (EF_{PM/S3} * T_{SST1}) + (EF_{PM/S4} * T_{SST2}) + (EF_{PM/S5} * T_{CYC})] / 2{,}000$$

Where:

ER_{PM} = Monthly Total PM emission rate from the entire facility, in tons per month.
$EF_{PM/S1}$ = Total PM emission factor for Stack S1, in lbs Total PM/ton wood.
W_{COOL} = Monthly throughput of COOL1 and COOL2, combined, determined and recorded in accordance with Condition 7.6b.
$EF_{PM/S3}$ = Total PM emission factor for Stack S3, in lbs Total PM/hr.
T_{SST1} = Monthly operating hours of SST1, determined and recorded in accordance with Condition 7.7a.
$EF_{PM/S4}$ = Total PM emission factor for Stack S4, in lbs Total PM/hr.
T_{SST2} = Monthly operating hours of SST2, determined and recorded in accordance with Condition 7.7b.
$EF_{PM/S5}$ = Total PM emission factor for Stack S5, , in lbs Total PM/hr.
T_{CYC} = Monthly operating hours of the fuel dust silo, determined and recorded in accordance with Condition 7.7c.
2,000 = Conversion Factor to Convert Pound into Ton.

The Permittee shall calculate Total PM emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.3d.i. – d.iv. and 6.4 reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.7.

Table 7.12: Total PM Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)	Stack S3	Stack S4	Stack S5
	DRY1 – DRY4 / DWS1 & DWS2 / DHM1 & DHM2 / PM1 – PM16 / COOL1 & COOL2	SST1	SST2	Fuel Dust Silo
Total PM	0.367 lb / ton wood	2.91 lbs/hr	2.91 lbs/hr	1.09 lbs/hr

The Permittee shall use the monthly records to calculate the facility-wide Total PM emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide Total PM emissions exceed 20.75 tons 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 Total PM emission limitation in Condition 2.1.

7.12 The Permittee shall calculate and record the amount of HAP emissions from the entire facility in each calendar month, using the following equation:
[391-3-1-.02(6)(b)1.]

$$ER_{HAP} = [(EF_{HAP/S1} * W_{COOL}) + (EF_{HAP/SILO} * W_{SILO})] / 2{,}000$$

Where:

ER_{HAP}	=	Monthly HAP emission rate from the entire facility, in tons per month.
$EF_{HAP/S1}$	=	HAP emission factor for Stack S1, in lbs HAP/ton wood.
W_{COOL}	=	Monthly throughput of COOL1 and COOL2, combined, determined and recorded in accordance with Condition 7.6b.
$EF_{HAP/SILO}$	=	HAP emission factor for the SILO1 – SILO8, in lbs HAP/ton wood.
W_{SILO}	=	Monthly throughput of SILO1 – SILO8, determined and recorded in accordance with Condition 7.6c.
2,000	=	Conversion Factor to Convert Pound into Ton.

The Permittee shall calculate HAP emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.3e.i. and 6.3e.ii and 6.4 reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.7.

Table 7.13: HAP Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)	No Stack ID
	DRY1 – DRY4 / DWS1 & DWS2 / DHM1 & DHM2 / PM1 – PM16 / COOL1 & COOL2	SILO1 – SILO8
Acetaldehyde	0.00925 lb / ton wood	0.0000485 lb / ton wood
Acrolein	0.00149 lb / ton wood	**0** lb / ton wood
Formaldehyde	0.0120 lb / ton wood	0.000485 lb / ton wood
Hydrogen chloride	0.00373 lb / ton wood	**0** lb / ton wood
Methanol	0.00941 lb / ton wood	0.000243 lb / ton wood
Phenol	0.00139 lb / ton wood	**0** lb / ton wood
Propionaldehyde	0.000455 lb / ton wood	**0** lb / ton wood
Other HAPs	0.0152 lb / ton wood	**0** lb / ton wood
Combined HAP	**0.0529 lb / ton wood**	**0.000340 lb / ton wood**

The Permittee shall use the monthly records to calculate the facility-wide HAP emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide single HAP emissions exceed 0.83 ton or combined HAP emissions exceed 2.08 tons 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 emission limitation in Condition 2.2.

7.13 The Permittee shall calculate and record the amount of arsenic (As) emissions from the entire facility in each calendar month, using the following equation:
[391-3-1-.02(6)(b)1.]

$$ER_{As} = (EF_{As/S1} * W_{DR})$$

Where:

ER_{As} = Monthly As emission rate from the entire facility, in pounds per month.
$EF_{As/S1}$ = As emission factor for Stack S1, in lbs As/ton wood.
W_{DR} = Monthly throughput of Dryers DRY1 – DRY4, combined, determined and recorded in accordance with Condition 7.6a.

The Permittee shall calculate As emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.3f.i. reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.7.

Table 7.14: As Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)
	BUR1 – BUR4
As	**0** lb / ton wood

The Permittee shall use the monthly records to calculate the facility-wide As emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide As emissions exceed 0.00472 pounds 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 As emission limitation in Condition 2.9.

7.14 The Permittee shall calculate and record the amount of hexavalent chromium (Cr VI) emissions from the entire facility in each calendar month, using the following equation: [391-3-1-.02(6)(b)1.]

$ER_{Cr} = (EF_{Cr/S1} * W_{DR})$

Where:

ER_{Cr} = Monthly Cr VI emission rate from the entire facility, in pounds per month.
$EF_{Cr/S1}$ = Cr VI emission factor for Stack S1, in lbs Cr VI/ton wood.
W_{DR} = Monthly throughput of Dryers DRY1 – DRY4, combined, determined and recorded in accordance with Condition 7.6a.

The Permittee shall calculate Cr VI emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.3f.i. reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.7.

Table 7.14: As Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)
	BUR1 – BUR4
Cr VI	**0** lb / ton wood

The Permittee shall use the monthly records to calculate the facility-wide Cr VI emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide Cr VI emissions exceed 0.00162 pounds 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 Cr VI emission limitation in Condition 2.10.

7.15 The Permittee shall use the monthly data required by Conditions 7.8 through 7.14 to determine and record the following. The Permittee shall follow the requirements specified in Condition 7.5b. and report the associated exceedances.
[391-3-1-.02(6)(b)1.]

a. The 12-month rolling total of NOx emissions from the entire facility ending in each calendar month of the semiannual reporting period.

b. The 12-month rolling total of CO emissions from the entire facility ending in each calendar month of the semiannual reporting period.

c. The 12-month rolling total of VOC emissions from the entire facility ending in each calendar month of the semiannual reporting period.

d. The 12-month rolling total of Total PM emissions from the entire facility ending in each calendar month of the semiannual reporting period.

e. The 12-month rolling total of single HAP emissions from the entire facility ending in each calendar month of the semiannual reporting period.

f. The 12-month rolling total of Combined HAP emissions from the entire facility ending in each calendar month of the semiannual reporting period.

g. The 12-month rolling total of arsenic emissions from the entire facility ending in each calendar month of the semiannual reporting period.

h. The 12-month rolling total of hexavalent chromium emissions from the entire facility ending in each calendar month of the semiannual reporting period.

A twelve- month rolling total shall be defined as the sum of the current month's total plus the totals for the previous eleven consecutive months.

Phase II

7.16 Upon the initial startup of Phase II, the Permittee shall maintain the following monthly records. The records shall be retained in a permanent form suitable and available for inspection or submittal to the Division upon request. These records shall be retained for at least five years following the day of record.
[391-3-1-.02(6)(b)(1)]

a. The amount of wood, in tons, processed through the dryers (ID No. DRY5 and DRY6), combined.

b. The amount of wood, in tons, processed through the pellet coolers (ID Nos. COOL1 – COOL4), combined.

c. The amount of wood, in tons, processed through the finished pellet silos (ID Nos. SILO1 – SILO16), combined.

d. The amount of wet wood, in tons, burned in the burners (ID Nos. BUR5 and BUR6), combined. The Permittee shall convert the ton/month wet wood burned into the total heat input rate into BUR5 and BUR6, combined, in the unit of MMBtu/month with wet wood.

e. The amount of dry wood, in tons, burned in the burners (ID Nos. BUR5 and BUR6), combined. The Permittee shall convert the ton/month dry wood burned into the total heat input rate into BUR5 and BUR6, combined, in the unit of MMBtu/month with dry wood.

7.17 The Permittee shall maintain the following monthly records. The records shall be retained in a permanent form suitable and available for inspection or submittal to the Division, upon request. These records shall be retained for at least five years following the day of record. [391-3-1-.02(6)(b)(1)]

a. The total hours per month that Sizing/Screening/Transport SST1 is in operation.

b. The total hours per month that Sizing/Screening/Transport SST2 is in operation.

c. The total hours per month that the fuel dust silo is in operation.

d. The total hours per month that the three-hour rolling average RTO combustion zone temperature falls below the minimum combustion zone temperature set point established in accordance with Condition 6.14b. (1,500°F before any performance test is conducted).

e. Total hours per month that the exhaust from BUR5, BUR6, DRY5, or DRY6 bypasses the regenerative thermal oxidizer (ID No. RTO).

f. The total hours per month that either of Dryers DRY5 and DRY6 is in operation.

7.18 Upon the initial startup of Phase II, the Permittee shall calculate and record the amount of NOx emissions from the entire facility in each calendar month, using the following equation: [391-3-1-.02(6)(b)1.]

$$ER_{NOx} = (EF_{NOx/S1} * H_B) / 2{,}000$$

Where:

ER_{NOx}	=	Monthly NOx emission rate from the entire facility, in tons per month.
$EF_{NOx/S1}$	=	NOx emission factor for Stack S1, in lbs NOx/MMBtu.
H_B	=	Monthly combined heat input into BUR5 and BUR6, combined, determined and recorded in accordance with Conditions 7.16d. and e.
2,000	=	Conversion Factor to Convert Pound into Ton.

The Permittee shall calculate NOx emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.9a.i. and 6.10 reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.13.

Table 7.18: NOx Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)
	BUR5 and BUR6
NOx	0.194 lb/MMBtu

The Permittee shall use the monthly records to calculate the facility-wide NOx emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide NOx emissions exceed 20.75 tons 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 **NOx** emission limitation in Condition 2.1.

7.19 Upon the initial startup of Phase II, the Permittee shall calculate and record the amount of CO emissions from the entire facility in each calendar month, using the following equation: [391-3-1-.02(6)(b)1.]

$ER_{CO} = (EF_{CO/S1} * H_B) / 2{,}000$

Where:

ER_{CO}	=	Monthly CO emission rate from the entire facility, in tons per month.
$EF_{CO/S1}$	=	CO emission factor for Stack S1, in lbs CO/MMBtu.
H_B	=	Monthly combined heat input into BUR5 and BUR6, combined, determined and recorded in accordance with Conditions 7.16d. and e.
2,000	=	Conversion Factor to Convert Pound into Ton.

The Permittee shall calculate CO emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.9b.i. and 6.10 reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.13.

Table 7.19: CO Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)
	BUR5 and BUR6
CO	0.194 lb/MMBtu

The Permittee shall use the monthly records to calculate the facility-wide CO emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide CO emissions exceed 20.75 tons 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 CO emission limitation in Condition 2.1.

7.20 Upon the initial startup of Phase II, the Permittee shall calculate and record the amount of VOC emissions from the entire facility in each calendar month, using the following equation: [391-3-1-.02(6)(b)1.]

$$ER_{VOC} = \{ EF_{VOC/DR} * W_{DR} * [\%DT + (1 - DRE) * (1 - \%DT)] + EF_{VOC/S2} * W_{COOL} \} / 2{,}000$$

$$\%DT = (T_{DT} / T_{DR}) * 100\%$$

Where:

ER_{VOC}	=	Monthly VOC emission rate from the entire facility, in tons per month.
$EF_{VOC/DR}$	=	Uncontrolled VOC emission factor prior to RTO, in lbs VOC/ton wood.
W_{DR}	=	Monthly throughput of Dryers DRY5 and DRY6, combined, determined and recorded in accordance with Condition 7.16a.
%DT	=	RTO percent down time, in percentage.
T_{DT}	=	Total hours per month that **(1)** the three-hour rolling average RTO combustion zone temperature falls below the minimum combustion zone temperature set point, determined and recorded in accordance with Condition 7.17d.; and **(2)** exhausts from BUR5, BUR6, DRY5, or DRY6 bypasses RTO, determined in accordance with Condition 7.17e.; **combined**, in hours per month.
T_{DR}	=	Total operating hours per month that either DRY5 or DRY6 is in operation (non-cumulative), determined in accordance with Condition 7.17f.
DRE	=	RTO control efficiency, in percentage.
$EF_{VOC/S2}$	=	VOC emission factor for Stack S2, in lbs VOC/ton wood.
W_{COOL}	=	Monthly throughput of COOL1 – COOL4, combined, determined and recorded in accordance with Condition 7.16b.
2,000	=	Conversion Factor to Convert Pound into Ton.

The Permittee shall calculate VOC emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.9c.i., 6.9c.ii., and 6.10 reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.13.

Table 7.20: VOC Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (RTO Outlet)		Stack S2 (BIO Outlet)	
	DRY5 & DRY6		DWS1 & DWS2 / DHM1 – DHM6 / PM1 – PM32 / COOL1 – COOL4	
	Factor Name	Factor and Unit	Factor Name	Factor and Unit
VOC	$EF_{VOC/DR}$	6 lb/ton wood	$EF_{VOC/S2}$	0.233 lb / ton wood
	DRE	98%		

The Permittee shall use the monthly records to calculate the facility-wide VOC emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide VOC emissions exceed 20.75 tons 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 VOC emission limitation in Condition 2.1.

7.21 Upon the initial startup of Phase II, the Permittee shall calculate and record the amount of Total PM emissions from the entire facility in each calendar month, using the following equation: [391-3-1-.02(6)(b)1.]

$$ER_{PM} = [(EF_{PM/S1} * W_{DR}) + (EF_{PM/S2} * W_{COOL}) + (EF_{PM/S4} * T_{SST1}) + (EF_{PM/S5} * T_{SST2}) + (EF_{PM/S6} * T_{CYC})] / 2{,}000$$

Where:

ER_{PM}	=	Monthly Total PM emission rate from the entire facility, in tons per month.
$EF_{PM/S1}$	=	Total PM emission factor for Stack S1, in lbs Total PM/ton wood.
W_{DR}	=	Monthly throughput of Dryers DRY5 and DRY6, combined, determined and recorded in accordance with Condition 7.16a.
$EF_{PM/S2}$	=	Total PM emission factor for Stack S2, in lbs Total PM/ton wood.
W_{COOL}	=	Monthly throughput of COOL1 – COOL4, combined, determined and recorded in accordance with Condition 7.16b.
$EF_{PM/S4}$	=	Total PM emission factor for Stack S4, in lbs Total PM/hr.
T_{SST1}	=	Monthly operating hours of SST1, determined and recorded in accordance with Condition 7.17a.
$EF_{PM/S5}$	=	Total PM emission factor for Stack S5, in lbs Total PM/hr.
T_{SST2}	=	Monthly operating hours of SST2, determined and recorded in accordance with Condition 7.17b.
$EF_{PM/S6}$	=	Total PM emission factor for Stack S6, , in lbs Total PM/hr.
T_{CYC}	=	Monthly operating hours of the fuel dust silo, determined and recorded in accordance with Condition 7.17c.
2,000	=	Conversion Factor to Convert Pound into Ton.

The Permittee shall calculate Total PM emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.9d.i. through 6.9d.v. and 6.10 reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.13.

Table 7.21: Total PM Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (RTO Outlet)	Stack S2 (BIO Outlet)	Stack S4	Stack S5	Stack S6
	DRY5 & DRY6	DWS1 & DWS2 / DHM1 – DHM6 / PM1 – PM32 / COOL1 – COOL4	SST1	SST2	Fuel Dust Silo
Total PM	0.164 lb / ton wood	0.160 lb / ton wood	2.91 lbs/hr	2.91 lbs/hr	1.09 lbs/hr

The Permittee shall use the monthly records to calculate the facility-wide Total PM emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide Total PM emissions exceed 20.75 tons 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 Total PM emission limitation in Condition 2.1.

7.22 Upon the initial startup of Phase II, the Permittee shall calculate and record the amount of HAP emissions from the entire facility in each calendar month, using the following equation: [391-3-1-.02(6)(b)1.]

$$ER_{HAP} = \{ EF_{HAP/DR} * W_{DR} * [\%DT + (1 - DRE) * (1 - \%DT)] + EF_{HAP/S2} * W_{COOL} + EF_{HAP/SILO} * W_{SILO} \} / 2{,}000$$

$$\%DT = (T_{DT} / T_{DR}) * 100\%$$

Where:

ER_{HAP} = Monthly HAP emission rate from the entire facility, in tons per month.
$EF_{HAP/DR}$ = Uncontrolled HAP emission factor prior to RTO, in lbs HAP/ton wood.
W_{DR} = Monthly throughput of Dryers DRY5 and DRY6, combined, determined and recorded in accordance with Condition 7.16a.
%DT = RTO percent down time, in percentage.
T_{DT} = Total hours per month that **(1)** the three-hour rolling average RTO combustion zone temperature falls below the minimum combustion zone temperature set point, determined and recorded in accordance with Condition 7.17d.; and **(2)** exhausts from BUR5, BUR6, DRY5, or DRY6 bypasses RTO, determined in accordance with Condition 7.17e.; **combined**, in hours per month.

T_{DR}	=	Total operating hours per month that either DRY5 or DRY6 is in operation (non-cumulative), determined in accordance with Condition 7.17f.
DRE	=	RTO control efficiency, in percentage.
$EF_{HAP/S2}$	=	HAP emission factor for Stack S2, in lbs HAP/ton wood.
W_{COOL}	=	Monthly throughput of COOL1 – COOL4, combined, determined and recorded in accordance with Condition 7.16b.
$EF_{HAP/SILO}$	=	HAP emission factor for the SILO1 – SILO16, in lbs HAP/ton wood.
W_{SILO}	=	Monthly throughput of SILO1 – SILO16, determined and recorded in accordance with Condition 7.16c.
2,000	=	Conversion Factor to Convert Pound into Ton.

The Permittee shall calculate HAP emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.9e.i. through 6.9e.iii., and 6.10 reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.13.

Table 7.22: HAP Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (RTO Outlet)		Stack S2 (BIO Outlet)		No Stack ID	
	DRY5 & DRY6		DWS1 & DWS2 / DHM1 – DHM6 / PM1 – PM32 / COOL1 – COOL4		SILO1 – SILO16	
	Factor Name	Factor and Unit	Factor Name	Factor and Unit	Factor Name	Factor and Unit
Acetaldehyde (lb/ton wood)	$EF_{HAP/DR}$	0.110	$EF_{HAP/S2}$	0.000392	$EF_{HAP/SILO}$	0.0000485
	DRE	98%				
Acrolein (lb/ton wood)	$EF_{HAP/DR}$	0.00641	$EF_{HAP/S2}$	0.000856	$EF_{HAP/SILO}$	**0**
	DRE	98%				
Formaldehyde (lb/ton wood)	$EF_{HAP/DR}$	0.140	$EF_{HAP/S2}$	0.000707	$EF_{HAP/SILO}$	0.0000485
	DRE	98%				
Hydrogen chloride (lb/ton wood)	$EF_{HAP/DR}$	0.012	$EF_{HAP/S2}$	**0**	$EF_{HAP/SILO}$	**0**
	DRE	70%				
Methanol (lb/ton wood)	$EF_{HAP/DR}$	0.110	$EF_{HAP/S2}$	0.000537	$EF_{HAP/SILO}$	0.000243
	DRE	98%				
Phenol (lb/ton wood)	$EF_{HAP/DR}$	0.00847	$EF_{HAP/S2}$	0.000624	$EF_{HAP/SILO}$	**0**
	DRE	98%				
Propionaldehyde	$EF_{HAP/DR}$	0.00206	$EF_{HAP/S2}$	0.000255	$EF_{HAP/SILO}$	**0**

Pollutant	Stack S1 (RTO Outlet)		Stack S2 (BIO Outlet)		No Stack ID	
	DRY5 & DRY6		DWS1 & DWS2 / DHM1 – DHM6 / PM1 – PM32 / COOL1 – COOL4		SILO1 – SILO16	
	Factor Name	Factor and Unit	Factor Name	Factor and Unit	Factor Name	Factor and Unit
(lb/ton wood)	DRE	98%				
Other HAPs (lb/ton wood)	$EF_{HAP/DR}$	0.190	$EF_{HAP/S2}$	**0**	$EF_{HAP/SILO}$	**0**
	DRE	98%				
Combined HAP (lb/ton wood)	**$EF_{HAP/DR}$**	**0.579**				
	After-Control*	**0.0149**	**$EF_{HAP/S2}$**	**0.00337**	**$EF_{HAP/SILO}$**	**0.000340**

* For combined HAP from Stack S1, the term "$EF_{HAP/DR}$ * (1 - DRE)" is equal to 0.0149 lb/ton wood.

The Permittee shall use the monthly records to calculate the facility-wide HAP emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide single HAP emissions exceed 0.83 ton or combined HAP emissions exceed 2.08 tons 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 emission limitation in Condition 2.2.

7.23 Upon the initial startup of Phase II, the Permittee shall calculate and record the amount of arsenic (As) emissions from the entire facility in each calendar month, using the following equation:
[391-3-1-.02(6)(b)1.]

$$ER_{As} = (EF_{As/S1} * W_{DR})$$

Where:

ER_{As} = Monthly As emission rate from the entire facility, in pounds per month.
$EF_{As/S1}$ = As emission factor for Stack S1, in lbs As/ton wood.
W_{DR} = Monthly throughput of Dryers DRY5 and DRY6, combined, determined and recorded in accordance with Condition 7.16a.

The Permittee shall calculate As emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.9f.i. reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.13.

Table 7.23: As Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)
	BUR5 and BUR6
As	**0** lb / ton wood

The Permittee shall use the monthly records to calculate the facility-wide As emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide As emissions exceed 0.00472 pounds 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 As emission limitation in Condition 2.9.

7.24 Upon the initial startup of Phase II, the Permittee shall calculate and record the amount of hexavalent chromium (Cr VI) emissions from the entire facility in each calendar month, using the following equation:
[391-3-1-.02(6)(b)1.]

$ER_{Cr} = (EF_{Cr/S1} * W_{DR})$

Where:

ER_{Cr} = Monthly Cr VI emission rate from the entire facility, in pounds per month.
$EF_{Cr/S1}$ = Cr VI emission factor for Stack S1, in lbs Cr VI/ton wood.
W_{DR} = Monthly throughput of Dryers DRY5 and DRY6, combined, determined and recorded in accordance with Condition 7.16a.

The Permittee shall calculate Cr VI emissions from the entire facility by using the following emission factor and the equation provided in this condition prior to initial performance tests. If any performance testing required in Conditions 6.9f.i. reveals emission factors higher than the emission factor listed below, the Permittee shall comply with Condition 6.13.

Table 7.14: As Emission Factor That Should Be Used Before Any Test Results Are Available

Pollutant	Stack S1 (BIO Outlet)
	BUR5 and BUR6
Cr VI	**0** lb / ton wood

The Permittee shall use the monthly records to calculate the facility-wide Cr VI emissions during each calendar month. The Permittee shall notify the Division in writing if the facility-wide Cr VI emissions exceed 0.00162 pounds 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 Cr VI emission limitation in Condition 2.10.

7.25 Upon the initial startup of Phase II, the Permittee shall use the monthly data required by Conditions 7.18 through 7.24 to determine and record the following. The Permittee shall follow the requirements specified in Condition 7.5b. and report the associated exceedances. [391-3-1-.02(6)(b)1.]

a. The 12-month rolling total of NOx emissions from the entire facility ending in each calendar month of the semiannual reporting period.

b. The 12-month rolling total of CO emissions from the entire facility ending in each calendar month of the semiannual reporting period.

c. The 12-month rolling total of VOC emissions from the entire facility ending in each calendar month of the semiannual reporting period.

d. The 12-month rolling total of Total PM emissions from the entire facility ending in each calendar month of the semiannual reporting period.

e. The 12-month rolling total of single HAP emissions from the entire facility ending in each calendar month of the semiannual reporting period.

f. The 12-month rolling total of Combined HAP emissions from the entire facility ending in each calendar month of the semiannual reporting period.

g. The 12-month rolling total of arsenic emissions from the entire facility ending in each calendar month of the semiannual reporting period.

h. The 12-month rolling total of hexavalent chromium emissions from the entire facility ending in each calendar month of the semiannual reporting period.

A twelve- month rolling total shall be defined as the sum of the current month's total plus the totals for the previous eleven consecutive months.

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 Application & Annual Permit Fees."

8.3 The Permittee shall submit a Title V Permit Application electronically using GEOS within 12 months after the initial startup and commencement of normal operations of the proposed pellet mill (**Phase I**).

Emission Unit Listing Phase I

Emission Units		Air Pollution Control Devices		Stack ID
ID No.	Description	ID No.	Description	
SHRED	Shredder	N/A	N/A	N/A
BUR1&2	Dryer 1&2 Burner Fuel Type: Wood Capacity: 30 MMBtu/hr Each	WESP1-4 BIO	Wet ESP 1-4 Biofilter	S1
BUR3&4	Dryer 3&4 Burner Fuel Type: Wood Capacity: 45 MMBtu/hr Each	WESP1-4 BIO	Wet ESP 1-4 Biofilter	S1
DRY1-4	Dryers 1-4	WESP1-4 BIO	Wet ESP 1-4 Biofilter	S1
DWS1&2	Dry Wood Silos 1&2	BGH1 BIO	Baghouse 1 Biofilter	S1
DHM1&2	Dry Hammermills 1&2	BGH1 BIO	Baghouse 1 biofilter	S1
PM1-8	Pellet Mills 1-8	BGH2 BIO	Baghouse 2 biofilters	S1
PM9-16	Pellet Mills 9-16	BGH3 BIO	Baghouse 3 biofilter	S1
COOL1	Pellet Cooler 1	BGH2 BIO	Baghouse 2 biofilters	S1
COOL2	Pellet Cooler 2	BGH3 BIO	Baghouse 3 biofilter	S1
SILO1-8	Finished Pellet Silos 1-8	N/A	N/A	N/A
SST1	Sizing/Screening/Transport 1	BGH4	Baghouse 4	S3
SST2	Sizing/Screening/Transport 2	BGH5	Baghouse 5	S4
N/A	Fuel Dust Silo	CYC	Cyclone	S5

Emission Unit Listing Phase II

Emission Units		Air Pollution Control Devices		Stack ID
ID No.	Description	ID No.	Description	
DBRK1&2	Debarkers 1&2	N/A	N/A	N/A
CHIP1&2	Chippers 1&2	N/A	N/A	N/A
SHRED	Shredder	N/A	N/A	N/A
BUR5&6	Dryer 5&6 Burner Fuel Type: Wood Capacity: 140 MMBtu/hr Each	WESP5&6 RTO	Wet ESP 5&6 Regenerative Thermal Oxidizer	S1
DRY5&6	Dryers 5&6	WESP5&6 RTO	Wet ESP 5&6 Regenerative Thermal Oxidizer	S1
DWS1	Dry Wood Silo 1	BGH1 BIO	Baghouse 1 biofilters	S2
DWS2	Dry Wood Silo 2	BGH2 BIO	Baghouse 2 biofilter	S2
DHM1-6	Dry Hammermills 1-6	BGH1&2 BIO	Baghouse 1&2 biofilters	S2
PM1-8	Pellet Mills 1-8	BGH3 BIO	Baghouse 3 biofilter	S2
PM9-16	Pellet Mills 9-16	BGH4 BIO	Baghouse 4 biofilters	S2
PM17-24	Pellet Mills 17-24	BGH5 BIO	Baghouse 5 biofilter	S2
PM25-32	Pellet Mills 25-32	BGH6 BIO	Baghouse 6 biofilters	S2
COOL1	Pellet Cooler 1	BGH3 BIO	Baghouse 3 biofilter	S2
COOL2	Pellet Cooler 2	BGH4 BIO	Baghouse 4 biofilters	S2
COOL3	Pellet Cooler 3	BGH5 BIO	Baghouse 5 biofilter	S2
COOL4	Pellet Cooler 4	BGH6 BIO	Baghouse 6 biofilters	S2
SILO1-16	Finished Pellet Silos 1-16	N/A	N/A	N/A
SST1	Sizing/Screening/Transport 1	BGH7	Baghouse 7	S4
SST2	Sizing/Screening/Transport 2	BGH8	Baghouse 8	S5
N/A	Fuel Dust Silo	CYC	Cyclone	S6