ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

October 2, 2019

Mr. Steven Schaar
Plant Manager
Enviva Pellets Sampson, LLC
5 Connector Road, US 117
Faison, NC 28341

SUBJECT: Air Quality Permit No. 10386R04
Facility ID: 8200152
Enviva Pellets Sampson, LLC
Faison, North Carolina
Sampson County
Fee Class: Title V
PSD Status: Major

Dear Mr. Schaar:

In accordance with your complete Prevention of Significant Deterioration (PSD) permit application received April 3, 2018, and State Renewal application received August 2, 2019, we are forwarding herewith Air Quality Permit No. 10386R04 to Enviva Pellets Sampson, LLC, 5 Connector Road, US 117, Faison, North Carolina, authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT."

As the designated responsible official, it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon

receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Sampson County has triggered increment tracking under PSD for PM10, PM2.5, and NOx. This modification will result in a decrease of 0.023 pounds per hour of PM10, a decrease of 4.6 pounds per hour of PM2.5, and a decrease of 0.091 pounds per hour of NOx.

This Air Quality Permit shall be effective from October 2, 2019 until September 30, 2027, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. Should you have any questions concerning this matter, please contact Betty Gatano, P.E., at (919) 707-8736 or Betty.Gatano@ncdenr.gov.

Sincerely yours,

for William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

c: Kelly Fortion, EPA Region 4
Fayetteville Regional Office
Central Files
Connie Horne (cover letter only)

ATTACHMENT

Insignificant Activities per 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
IES-GWH **PSD**	Green wood handling and sizing operations
IES-BARKHOG **PSD**	Bark Hog
IES-TK-1 **PSD**	Diesel fuel storage tank (up to 2,500 gallons capacity)
IES-TK-2 **PSD**	Diesel fuel storage tank (up to 1,000 gallons capacity)
IES-TK-3 **PSD**	Diesel fuel storage tank (up to 2,500 gallons capacity)
IES-GWSP-1 through IES-GWSP-4 **PSD**	Four (4) green wood storage piles
IES-BFSP-1 and IES-BFSP-2 **PSD**	Two (2) bark fuel storage piles
IES-DEBARK-1 **PSD**	Debarker
IES-CHIP-1 **PSD**	Log chipping
IES-DRYSHAVE **PSD**	Dry shaving material handling
IES-BFB **PSD**	Bark fuel bin
IES-PAVEDROADS **PSD**	Paved roads
IES-EG **NSPS Subpart IIII** **MACT Subpart ZZZZ**	689 HP diesel-fired emergency generator
IES-FWP **NSPS Subpart IIII** **MACT Subpart ZZZZ**	131 HP diesel-fired fire water pump

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit".
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows: http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide.

Summary of Changes to Permit

The following changes were made to Enviva Pellets Sampson, LLC, Sampson, NC., Air Permit No. 10386R03.

Pages	Section	Description of Changes
Cover and throughout	--	Updated all dates and permit revision numbers.
Insignificant Activities list	--	• Added log chipping (ID No. IES-CHIP-1). • Added the bark hog (ID No. IES-BARKHOG). • Removed the dry wood handling and sizing operations (ID No. IES-DWHS). • Added two greenwood storage piles (ID No. IES-GWSP-3 and -4). • Added two bark fuel storage piles (ID No. IES-BFSP-1 and -2). • Added dry shaving materials handling (ID No. IES-DRYSHAVE). • Removed greenwood fuel bin (ID No. IES-GWFB). • Added bark fuel bin (ID No. IES-BFB). • Added paved roads (ID No. IES-PAVEDROADS) • Reformatted listing for the emergency generator (ID No. IES-EG) and the fire water pump (ID No. IES-FWP). • Added the "PSD" label to all applicable equipment.
3	Section 1 – Equipment Table	• Changed reference to bagfilters and bin vent filters to baghouses and renamed control devices accordingly. • Removed log chipping (ID No. ES-CHIP-1) and moved emission source to the insignificant activities list. • Removed the bark hog (ID No. ES-BARKHOG) and moved emission source to the insignificant activities list. • Removed baghouses (ID Nos. CD-GHM-BH-1 through -3) as control devices for the green wood hammermills (ID Nos. ES-GHM-1 through -3). The WESP (ID No. CD-WESP) and the regenerative thermal oxidizer (RTO) (ID No. RTO) will be used as PM, VOC, and HAP control for the green wood hammermills. • Removed the cyclones (ID Nos. CD-DC1 through DC4) as control devices for the dryer (ID No. ES-DRYER). These cyclones are used for product recovery rather than as control devices. The WESP (ID No. CD-WESP) and the RTO (ID No. RTO) will be used as PM, VOC, and HAP control for the dryer. • Added RTO (ID No. CD-RTO) as control on the dryer (ID No. ES-DRYER). • Added a furnace bypass (ID No. ES-FBYPASS) and a dryer bypass (ID No. ES-DBYPASS). • Added dried wood handling operations (ID No. ES-DWH) controlled by two baghouses (ID No. CD-DWH-BH-1 and -2). • Removed the cyclones (ID Nos. CD-HM-CYC-1 through -8) on the dry hammermills (ID No. ES-HM-1 through -8). These cyclones are used for product recovery rather than as control devices. The baghouses (ID Nos. CD-HM-BH1 through 8) are used as PM control for the dry hammermills.

Pages	Section	Description of Changes
3	Section 1 – Equipment Table (continued)	• Added hammermill conveying system (ID No. ES-HMC) controlled by a baghouse (ID No. CD-HMC-BH). • Added additive handling and storage (ID No. ES-ADD) controlled by a baghouse (ID No. CD-ADD-BH). • Changed the name of the pellet fine bins (ID No. ES-PFB) to the pellet cooler HP fines relay system (ID No. ES-PCHP) controlled by baghouse (ID No. CD-PCHP-BH), to reflect the nomenclature at the facility. • Added references to presses to the pellet coolers (ID Nos. ES-CLR-1 through -6). • Changed the name of the pellet cooler recirculation (ID No. ES-PCR) to the pellet cooler LP fines relay system (ID No. ES-PCLP) controlled by a baghouse (ID No. CD-PCLP-BH), to reflect the nomenclature at the facility.
5	2.1 A Equipment List	Updated and reformatted equipment list.
6	2.1 A.1.b	Removed requirements to test WESP (ID No. WESP) because this requirement has been met. Replaced with shell testing language.
--	2.1 A.1.c (old)	Removed requirement for the facility to maintain process rates. This requirement is typically for emission sources with no controls. All the permitted emission sources of PM are controlled.
6	2.1 A.1.c (new)	Added testing requirements to demonstrate compliance with 15A NCAC 02D .0515 for the dryer (ID No. ES-DRYER), green wood hammermills (ID Nos. ES-GHM-1, ES-GHM-2, and ES-GHM-3), dry hammermills (ID No. ES-HM-1 through -8), and pellet presses and pellet coolers (ID Nos. ES-CLR-1 through ES-CLR-6).
6 – 7	2.1 A.1.d	Specified that each PM emission source shall be controlled by baghouse or cyclone.
7	2.1 A.1.f through i	Clarified the inspection, maintenance, and operating requirements of the WESP (ID No. CD-WESP) and RTO (ID No. CD-RTO) for PM control from the dryer (ID No. ES-DRYER) and green wood hammermills (ID No. ES-GHM-1 through -3).
7	2.1 A.1.k	Added semiannual reporting requirement.
8	2.1 A.3.c	Added requirement to re-establish normal VE after exhaust from the green wood hammermills has been rerouted to the WESP (ID No. CD-WESP) and the RTO (ID No. CD-RTO).
9	2.1 A.3.e	Added semiannual reporting requirement.
9 -10	2.1 A.4	Modified the permitting language for the 112(g), Case-by-Case, MACT.
11 – 16	2.2 A.1	• Updated BACT emission limits and controls for the Softwood Expansion Project (SWEP). • Removed footnote and permit language stating that the BACT emission limits do not apply during startup, shutdown, or malfunction (SSM). The emission limits do apply during SSM and DAQ has added work practice standards and operating limits to the permit to ensure compliance. • Updated requirements to reflect revised emission limits and BACT.
16	2.2 A.2	Added condition for reporting of excess emissions under 15A NCAC 02D .0535.
17	2.2 A.3	Added condition for 15A NCAC 02D .0540, Particulates from Fugitive Dust Emission Sources.
17	2.2 A.4	Added condition for 15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions.
17	2.2 A.5	Added condition for 15A NCAC 02Q .0207, Annual Emissions Reporting, requiring Permittee to submit emissions inventory annually.

Pages	Section	Description of Changes
17	2.2 A.6	Added condition for 15A NCAC 02Q .0304, Applications, requiring Permittee to submit permit renewal at least 90 days from permit expiration date.
18	2.2 A.7	Added condition for 15A NCAC 02Q .0504, Option for Obtaining Construction and Operation Permit, requiring Permittee to submit amended Title V permit application within 12 months of operating any of the new sources or control devices.

State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
10386R04	10386R03	October 2, 2019	September 30, 2027

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee:	**Enviva Pellets Sampson, LLC**
Facility ID:	**8200152**
Facility Site Location:	**5 Connector Road, US 117**
City, County, State, Zip:	**Faison, Sampson County, North Carolina, 28341**
Mailing Address:	**5 Connector Road, US 117**
City, State, Zip:	**Faison, North Carolina, 28341**
Application Number:	**8200152.18A and 8200152.19A**
Complete Application Date:	**April 3, 2018 and August 2, 2019**
Primary SIC Code:	**2499**
Division of Air Quality, Regional Office Address:	**Fayetteville Regional Office Systel Building 225 Green Street, Suite 714 Fayetteville, North Carolina, 28301**

Table of Contents

SECTION 1- PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-GHM-1, ES-GHM-2, ES-GHM-3 **PSD** **Case-by-Case** **MACT**	Three (3) green wood hammermills	CD-WESP CD-RTO	One wet electrostatic precipitator (29,904 square feet of collector plate area) in series with one natural gas/propane-fired regenerative thermal oxidizer (maximum firing rate of 32 million Btu per hour)
ES-DRYER **PSD** **Case-by-Case** **MACT**	Wood-fired direct heat drying system (250.4 million Btu per hour heat input)	CD-WESP CD-RTO	One wet electrostatic precipitator (29,904 square feet of collector plate area) in series with one natural gas/propane-fired regenerative thermal oxidizer (maximum firing rate of 32 million Btu per hour)
ES-FBYPASS **PSD**	Furnace bypass	N/A	N/A
ES-DBPYASS **PSD**	Dryer bypass	N/A	N/A
ES-DWH **PSD** **Case-by-Case** **MACT**	Dried wood handling operations	CD-DWH-BH-1 and CD-DWH-BH-2	Two (2) baghouses (377 square feet of filter area, each)
ES-HM-1 through ES-HM-8 **PSD** **Case-by-Case** **MACT**	Eight (8) dry hammermills	CD-HM-BH1 through CD-HM-BH8	Eight (8) baghouses (2,168 square feet of filter area each)
ES-HMC **PSD**	Hammermill conveying system	CD-HMC-BH	One baghouse (377 square feet of filter area)
ES-PMFS **PSD**	Pellet mill feed silo	CD-PMFS-BH	One baghouse (377 square feet of filter area)
ES-ADD **PSD**	Additive Handling and Storage	CD-ADD-BH	One baghouse (942 square feet of filter area)
ES-HMA and ES-PCHP **PSD** **Case-by-Case** **MACT**	Hammermill area and pellet cooler HP fines relay system	CD-PCHP-BH	One baghouse (1,520 square feet of filter area)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-CLR-1 through ES-CLR-6 **PSD** **Case-by-case MACT**	Six (6) pellet coolers and twelve (12) pellet presses (two (2) pellet presses are associated with each pellet cooler)	CD-CLR-1 through CD-CLR-6	Six (6) simple cyclones (54 inches in diameter) installed one each on the coolers
ES-PCLP **PSD**	Pellet cooler LP fines relay system	CD-PCLP-BH	One baghouse (942 square feet of filter area)
ES-PSTB **PSD**	Pellet sampling transfer bin	CD-PSTB-BH	One baghouse (377 square feet of filter area)
ES-FPH, ES-PB-1 through ES-PB-4, ES-PL-1 and ES-PL-2 **PSD**	Finished product handling, four (4) pellet load-out bins, and two (2) pellet mill loadouts	CD-FPH-BH	One baghouse (4,842 square feet of filter area)

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. Three (3) green wood hammermills (ID Nos. ES-GHM-1, ES-GHM-2 and ES-GHM-3) controlled by a wet electrostatic precipitator (ID No. CD-WESP) and a regenerative thermal oxidizer (ID No. CD-RTO)

Wood-fired direct heat drying system (ID No. ES-DRYER) controlled by a wet electrostatic precipitator (ID No. CD-WESP) and a regenerative thermal oxidizer (ID No. CD-RTO)

Furnace bypass (ID No. ES-FBYPASS) and dryer bypass (ID No. ES-DBYPASS)

Dry wood handling operations (ID No. ES-DWH) controlled by baghouses (ID Nos. CD-DWH-BH-1 and 2)

Eight (8) hammermills (ID Nos. ES-HM-1 through ES-HM-8) controlled by baghouses (ID Nos. CD-HM-BH1 through CD-HM-BH8)

Hammermill conveying system (ID No. ES-HMC) controlled by baghouse (ID No. CD-HMC-BH)

Hammermill area (ID No. ES-HMA) and pellet cooler HP fines relay system (ID No. ES-PCHP) controlled by a baghouse (ID No. CD-PCHP-BH)

Pellet mill feed silo (ID No. ES-PMFS) controlled by a baghouse (ID No. CD-PMFS-BH)

Pellet presses and pellet coolers (ID Nos. ES-CLR-1 through ES-CLR-6) controlled by cyclones (ID Nos. CD-CLR-1 through CD-CLR-6)

Pellet cooler LP fines relay system (ID No. ES-PCLP) controlled by a baghouse (ID No. CD-PCLP-BH)

Pellet sampling transfer bin (ID No. ES-PSTB) controlled by a baghouse (ID No. CD-PSTB-BH)

Finished product handling (ID No. ES-FPH), pellet load-out bins (ID Nos. ES-PB-1 through ES-PB-4), and pellet mill load-out (ID No. ES-PL-1 and ES-PL-2) controlled by a baghouse (ID No. CD-FPH-BH)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10 \times P^{0.67}$ for $P < 30$ tph $E = 55 \times P^{0.11} - 40$ for $P \geq 30$ tph where, E = allowable emission rate (lb/hr) P = process weight rate (tph)	15A NCAC 02D .0515
Sulfur dioxide	*ID No. ES-DRYER only:* 2.3 pounds per million Btu	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Hazardous Air Pollutants	See Section 2.1 A.4.	15A NCAC 02D .1112 [112(g) Case-by-Case MACT]
PM/PM10/PM2.5 Nitrogen oxides Volatile organic carbon Carbon monoxide Greenhouse gases	See Section 2.2 A.1.	15A NCAC 02D .0530

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ for $P < 30$ tph
$E = 55 \times P^{0.11} - 40$ for $P \geq 30$ tph

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

c. Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall demonstrate compliance with emission limits in Section 2.1 A.1.a for the wood-fired direct heat drying system **(ID No. ES-DRYER),** green wood hammermills **(ID Nos. ES-GHM-1, ES-GHM-2, and ES-GHM-3)**, dry hammermills **(ID Nos. ES-HM-1 through ES-HM-8),** and pellet presses and pellet coolers **(ID Nos. ES-CLR-1 through ES-CLR-6)**. Testing shall be conducted as specified in Section 2.2 A.1.d.

Monitoring [15A NCAC 02Q .0308(a)]

For baghouses and/or cyclones:

d. Particulate matter emissions shall be controlled as follows:
   i. Particulate matter emissions from the dry wood handling operations **(ID No. ES-DWH)** shall be controlled by baghouses **(ID Nos. CD-DWH-BH-1 and CD-DWH-2)**;
   iii. Particulate matter emissions from eight (8) hammermills **(ID Nos. ES-HM-1 through ES-HM-8)** shall be controlled by baghouses **(ID Nos. CD-HM-BH1 through CD-HM-BH8);**
   iv. Particulate matter emissions from the hammermill conveying system **(ID No. ES-HMC)** shall be controlled by baghouse **(ID No. CD-HMC-BH);**

v. Particulate matter emissions from the hammermill area **(ID No. ES-HMA)** and pellet cooler HP fines relay system **(ID No. ES-PCHP)** shall be controlled by baghouse **(ID No. CD-PCHP-BH)**;
vi. Particulate matter emissions from the pellet mill feed silo **(ID No. ES-PMFS)** shall be controlled by baghouse **(ID No. CD-PMFS-BH)**;
vii. Particulate matter emissions from the pellet presses and pellet coolers **(ID Nos. ES-CLR-1 through ES-CLR-6)** shall be controlled by cyclones **(ID Nos. CD-CLR-1 through CD-CLR-6)**;
viii. Particulate matter emissions from pellet cooler LP fines relay system **(ID No. ES-PCLP)** shall be controlled by baghouse **(ID No. CD-PCLP-BH)**;
ix. Particulate matter emissions from the pellet sampling transfer bin **(ID No. ES-PSTB)** shall be controlled by baghouse **(ID No. CD-PSTB-BH)**; and
x. Particulate matter emissions from finished product handling **(ID No. ES-FPH)**, pellet load-out bins **(ID Nos. ES-PB-1 through ES-PB-4)**, and pellet mill load-out **(ID No. ES-PL-1 and ES-PL-2)** shall be controlled by baghouse **(ID No. CD-FPH-BH)**.

e. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
i. a monthly visual inspection of the system ductwork and material collection units for leaks; and
ii. an annual (for each 12-month period following the initial inspection) internal inspection of the baghouses' structural integrity.

For wet electrostatic precipitator and regenerative thermal oxidizer:

f. Particulate matter emissions shall be controlled as follows:
i. Particulate matter emissions from the green wood hammermills **(ID Nos. ES-GHM-1, ES-GHM-2 and ES-GHM-3)** shall be controlled by a wet electrostatic precipitator **(ID No. CD-WESP)** in series with a regenerative thermal oxidizer **(ID No. CD-RTO)**.
ii. Particulate matter emissions from the wood-fired direct heat drying system **(ID No. ES-DRYER)** shall be controlled by a wet electrostatic precipitator **(ID No. CD-WESP)** in series with a regenerative thermal oxidizer **(ID No. CD-RTO)**.

g. To ensure compliance and effective operation of the wet electrostatic precipitator **(ID No. CD-WESP)**, the Permittee shall:
i. operate the wet electrostatic precipitator with at least the minimum number of grids operating during compliance testing specified in Section 2.1 A.1.c above;
ii. maintain the minimum secondary voltage and minimum current at the level established during compliance testing specified in Section 2.1 A.1.c above.
iii. monitor and record the secondary voltage and current for each grid of the precipitator daily. The daily observation must be made for each day of the calendar year period. The Permittee shall be allowed three (3) days of absent observations per semiannual period.
iv. The Permittee may re-establish any parametric operating value during periodic testing. Compliance with previously approved parametric operating values is not required during periodic required testing or other tests undertaken to re-establish parametric operating values by the Permittee. If the new parametric operating values re-established during periodic testing are more stringent, the Permittee shall submit a request to revise the value(s) in the permit at the same time the test report required pursuant to General Condition 17 is submitted. The permit revision will be processed pursuant to 15A NCAC 02Q .0514. If, during performance testing, the new parametric operating values are less stringent, the Permittee may request to revise the value(s) in the permit pursuant to 15A NCAC 02Q .0515.

h. To ensure compliance, the Permittee shall perform inspections and maintenance on the wet electrostatic precipitator **(ID No. CD-WESP)** and the regenerative thermal oxidizer **(ID No. CD-RTO)**, as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance

recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

i. a monthly visual inspection of the system ductwork and material collection units for leaks;
ii. an annual (for each 12-month period following the initial inspection) internal inspection of the heat transfer medium and associated inlet/outlet valves on the regenerative thermal oxidizer **(ID No. CD-RTO)**; and
iii. an annual (for each 12-month period following the initial inspection) internal inspection of the wet electrostatic precipitator **(ID No. CD-WESP)**. This inspection must include (but is not limited to) the following:
(A) visual checks of critical components,
(B) checks for any equipment that does not alarm when de-energized, to ensure it is operational,
(C) checks for signs of plugging in the hopper and gas distribution equipment, and
(D) replacement of broken equipment as required.

Recordkeeping [15A NCAC 02Q .0308(a)]

i. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
i. the date and time of each recorded action;
ii. the results of each inspection;
iii. the results of any maintenance performed on the control devices; and
iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0308(a), 15A NCAC 02D .0605(b)(3)]

j. The Permittee shall submit the results of any maintenance performed on the wet electrostatic precipitator, regenerative thermal oxidizer, cyclones, and/or baghouses within 30 days of a written request by the DAQ.
k. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 A.1.d through i above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from this source **(ID No. ES-DRYER)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from firing biomass in the wood-fired direct heat drying system **(ID No. ES-DRYER)**.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0308(a)]

c. To ensure compliance, once a month the Permittee shall observe the emission points of the sources in Section 2.1 A for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. For the green wood hammermills **(ID Nos. ES-GHM-1, ES-GHM-2 and ES-GHM-3)** and wood-fired direct heat drying system **(ID No. ES-DRYER)**, the Permittee shall establish "normal" in the first 30 days following the commencement of operation after exhaust from the green wood hammermills has been rerouted to the WESP **(ID No. CD-WESP)** and the RTO **(ID No. CD-RTO)**. If visible emissions from the sources in Section 2.1 A are observed to be above normal, the Permittee shall either:
   i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.3.a. above.

Recordkeeping [15A NCAC 02Q .0308(a)]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0308(a), 15A NCAC 02D .0605(b)(3)]

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 A.3.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .1112: 112(g) CASE BY CASE MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1112, "Case-By-Case Maximum Achievable Control Technology," and as promulgated in 40 CFR 63, including Subpart A "General Provisions." The Permittee shall comply with the following:
   i. For the wood pellet mill dryer **(ID No. ES-DRYER)**, the Permittee shall use a low HAP emitting dryer design not requiring add-on control.
   ii. Within six months of issuance of this permit (10386R04), the Permittee shall submit to DAQ an application requesting authorization for installation of a regenerative catalytic oxidizer or regenerative thermal oxidizer (RCO/RTO) to control HAP emissions from the pellet presses and pellet coolers **(ID Nos. ES-CLR-1 through ES-CLR-6)**. Installation and startup of the control device shall be completed by no later than June 1, 2021, provided that, if a permit authorizing the same is not issued until after June 1, 2020, installation and startup of the control device shall be completed within twelve months of permit issuance. Initial compliance for the RCO/RTO shall be demonstrated in accordance with the future issued permit.
   iii. Within six months of issuance of this permit (10386R04), the Permittee shall submit to DAQ an application requesting authorization for either of the following:

(A) the installation of an RCO/RTO to control VOC and HAP emissions from the dry hammermills **(ID Nos. ES-HM-1 through ES-HM-8)**, or
(B) an engineering solution that will result in an equivalent or greater reduction in VOC and HAP emissions from the dry hammermills.

Installation and startup of the control device or engineering solution shall be completed by no later than June 1, 2021, provided that, if a permit authorizing the same is not issued until after June 1, 2020, installation and startup of the control device shall be completed within twelve months of permit issuance. Initial compliance for the RCO/RTO or engineering solution shall be demonstrated in accordance with the future issued permit.

Testing [15A NCAC 02Q .0308(a)]

b. Initial Performance Tests – Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall establish emission factors for HAPs by conducting an initial performance test on the wood-fired direct heat drying system **(ID No. ES-DRYER)**, the green wood hammermills **(ID Nos. ES-GHM-1, ES-GHM-2, and ES-GHM-3)**, the dry hammermills **(ID Nos. ES-HM-1 through ES-HM-8)**, the dry wood handling operations **(ID Nos. ES-DWH)**, and the pellet presses and coolers **(ID Nos. ES-CLR-1 through ES-CLR-6)**. Initial testing shall be conducted in accordance with the following:
   i. The pollutants and emission sources to be tested during the initial performance test are listed in the following table:

Emission Source	Pollutant
Dryer system/green wood hammermills controlled via WESP and RTO	Acetaldehyde Acrolein Formaldehyde Methanol Phenol Propionaldehyde
One pellet cooler cyclone	
One dry hammermill baghouse	
Dry wood handling operations	

   ii. Initial testing shall be conducted in accordance with Section 2.2 A.1.d.ii through vi. below.

c. Periodic Performance Tests – Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall establish emission factors for HAPs by conducting periodic performance tests on the wood-fired direct heat drying system **(ID No. ES-DRYER)**, the green wood hammermills **(ID Nos. ES-GHM-1, ES-GHM-2, and ES-GHM-3)**, the dry hammermills **(ID Nos. ES-HM-1 through ES-HM-8)**, and the pellet presses and coolers **(ID Nos. ES-CLR-1 through ES-CLR-6)**. Periodic testing shall be conducted in accordance with the following:
   i. The pollutants and emission sources to be tested during the periodic performance tests are listed in the following table:

Emission Sources	Pollutant
Dryer system/green wood hammermills controlled via WESP and RTO	Acetaldehyde Acrolein Formaldehyde Methanol Phenol Propionaldehyde
One pellet cooler cyclone	
One dry hammermill baghouse	

   ii. Periodic testing shall be conducted in accordance with Section 2.2 A.1.e.ii through xiv below.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

d. No monitoring recordkeeping, or reporting is required for any emission source subject to 112(g) Case-by-Case MACT.

2.2- Multiple Emission Source(s) Limitations and Conditions

A. Facility-wide Emission Sources

The following table provides a summary of limits and standards for the emission source(s) describe above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM/PM10/PM2.5 Nitrogen oxides Volatile organic carbon Carbon monoxide Greenhouse gases	BACT Limits	15A NCAC 02D .0530
Fugitive dust	Minimize fugitive dust beyond property boundary	15A NCAC 02D .0540
Odor	State-enforceable only odor control	15A NCAC 02D .1806
N/A	Annual Emission Reporting due June 30	15A NCAC 02Q .0207
N/A	Permit renewal application due 90 days prior to permit expiration	15A NCAC 02Q .0304
N/A	Option for obtaining construction and operation permit	15A NCAC 02Q .0504

1. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with 15A NCAC 02D .0530, "Prevention of Significant Deterioration of Air Quality" (PSD) as promulgated in 40 CFR 51.166.

b. For PSD purposes, the following "Best Available Control Technology" (BACT) emissions limits shall not be exceeded:

Emission Source	Pollutant	Control Technology or Work Practice	BACT Emission Limit	Averaging Period
Wood-fired Direct Heat Drying System **(ID No. ES-DRYER)**	NOx	Good Combustion Practices	0.20 lb/million Btu	3-hour
	CO	Process Design	0.21 lb/ million Btu	3-hour
	GHG	Good Operating Practices	230,000 tpy (CO_2e)	Annual
Wood-fired Direct Heat Drying System **(ID No. ES-DRYER)** Green Wood Hammermills **(ID Nos. ES-GHM-1 to ES-GHM-3)**	VOC**	RTO	0.15 lb/ODT	3-hour
	PM/PM10/2.5	WESP	0.105 lb/ODT (filterable only)	3-hour
Dry Hammermills **(ID Nos. ES-HM-1 to ES-HM-8)**	VOC**	Good Operating Procedures	0.60 lb/ODT	3-hour
	PM	Baghouse	0.004 gr/scf	3-hour
	PM10		0.004 gr/scf (filterable only)	3-hour
	PM2.5		0.000014 gr/scf (filterable only)	3-hour
Hammermill Conveying System **(ID No. ES-HMC)**	PM	Baghouse	0.004 gr/scf	3-hour
Dried Wood Handling **(ID No. ES-DWH)**	VOC**	Good Operating Procedures	0.12 lb/ODT	3-hour

Emission Source	Pollutant	Control Technology or Work Practice	BACT Emission Limit	Averaging Period
	PM	Baghouses	0.004 gr/scf	3-hour
Pellet Presses and Coolers **(ID No. ES-CLR-1 to ES-CLR-6)**	VOC**	Good Operating Procedures	1.74 lb/ODT	3-hour
	PM	Cyclones - Proper Design and Good Operating Procedures	0.04 gr/scf	3-hour
	PM10		0.0057 gr/scf (filterable only)	3-hour
	PM2.5		0.0007 gr/scf (filterable only)	3-hour
Pellet cooler LP Fines Relay System **(ID No. ES-PCLP)**	PM2.5/PM10/PM	Baghouse	0.004 gr/scf	3-hour
Pellet Sampling Transfer Bin **(ID No. ES-PSTB)**	PM2.5/PM10/PM	Baghouse	0.004 gr/scf	3-hour
Hammermill Area/Pellet cooler HP Fines Relay System **(ID Nos. ES-HMA and ES-PCHP)**	PM2.5/PM10/PM	Baghouse	0.004 gr/scf	3-hour
Pellet Mill Feed Silo **(ID No. ES-PMFS)**	PM2.5/PM10/PM	Baghouse	0.004 gr/scf	3-hour
Finished Product Handling/Pellet Loadout Bins/Pellet Mill Loadouts **(ID Nos. ES-FPH, ES-PB-1 to 4/ ES-PL-1 and 2)**	PM	Baghouse	0.004 gr/scf	3-hour
	PM10	Baghouse	0.004 gr/scf	3-hour
	PM2.5	Baghouse	0.000014 gr/scf	3-hour
Paved Roads **(ID No. IES-PAVEDROADS)**	PM/PM10/PM2.5	Combination of watering of paved roads, vehicle speed control, and good housekeeping	Not Applicable	
Green Wood Handling **(ID No. IES-GWH)**	PM/PM10/PM2.5	None	Not Applicable	
Green Wood Storage Piles **(ID Nos. IES-GWSP-1 to IES-GWPS-4)**	VOC			
	PM/PM10/PM2.5			
Bark Fuel Storage Piles **(ID Nos. IES-BFSP-1 and IES-BFSP-2)**	VOC			
	PM/PM10/PM2.5			
Bark Fuel Bin **(ID No. IES-BFB)**	PM/PM10/PM2.5			
Dry Shavings Material Handling **(ID No. IES-DRYSHAVE)**	PM			
Debarker **(ID No. IES-DEBARK-1)**	PM/PM10/PM2.5			
Log Chipping **(ID No. IES-CHIP-1)**	VOC			
Bark Hog **(ID No. IES-BARKHOG)**	VOC			
	PM			
Diesel storage tanks **(ID Nos. IES-TK1, IES-TK2, and IES-TK3)**	VOC	Good operation practices	Not Applicable	

* The VOC limit is expressed as alpha pinene basis per the procedures in EPA OTM 26.

Notifications [15A NCAC 02Q .0308(a)]

c. The completion of the Softwood Expansion Project (SWEP) is defined as the replacement of pellet presses that allow throughput of up to 657,000 ODT/year on an annual basis and the rerouting of the exhaust from the green wood hammermills **(ID Nos. ES-GHM-1, ES-GHM-2, and ES-GHM-3)** to the wet electrostatic precipitator **(ID No. CD-WESP)** and the regenerative thermal oxidizer **(ID No. CD-RTO)**. The Permittee shall notify the DAQ of the actual completion date of the SWEP postmarked within 15 days after such date.

Testing [15A NCAC 02Q .0308(a)]

d. Initial Performance Tests – Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall demonstrate compliance with the BACT emission limits in Section 2.2 A.1.b above by conducting an initial performance test on the wood-fired direct heat drying system **(ID No. ES-DRYER)**, the green wood hammermills **(ID Nos. ES-GHM-1, ES-GHM-2, and ES-GHM-3)**, the dry hammermills **(ID Nos. ES-HM-1 through ES-HM-8)**, the dry wood handling operations **(ID Nos. ES-DWH)**, and the pellet presses and coolers **(ID Nos. ES-CLR-1 through ES-CLR-6)**. Initial testing shall be conducted in accordance with the following:

i. The pollutants and emission sources to be tested during the initial performance test are listed in the following table:

Emission Sources	Pollutant
Dryer system/green wood hammermills controlled via WESP and RTO	VOC
	PM/PM10/PM2.5
	NOx
	CO
One pellet cooler cyclone	VOC
	PM/PM10/PM2.5
One dry hammermill baghouse	VOC
	PM/PM10/PM2.5
Dry wood handling operations	VOC

ii. The Permittee shall conduct initial compliance testing in accordance with a testing protocol approved by the DAQ.

iii. The Permittee shall submit a protocol to DAQ at least 45 days prior to initial compliance testing and shall submit a notification of initial compliance testing at least 15 days in advance of the testing.

iv. The RTO **(ID No. CD-RTO)** is comprised of two fireboxes, each containing two temperature probes. During the initial compliance test, the Permittee shall establish the minimum average firebox temperature for each of the two fireboxes comprising the regenerative thermal oxidizer **(ID No. CD-RTO)**, for a total of two average temperatures per regenerative thermal oxidizer. "Average firebox temperature" means the average temperature of the two temperature probes in each firebox. The minimum average firebox temperature for each firebox shall be based upon the average temperature of the two temperature probes over the span of the test runs. Documentation for the minimum average firebox temperature for each firebox shall be submitted to the DAQ as part of the initial compliance test report.

v. Initial compliance testing shall be completed as follows:
   (A) The Permittee shall be responsible for ensuring, within practicable limits, that the equipment or processes being tested are operated at or near the maximum normal production rate but at a rate not to exceed 71.71 ODT per hour (not to exceed 537,625 ODT per year on an annual basis).
   (B) Testing shall be conducted at the maximum normal operating softwood percentage, not to exceed 80% softwood.
   (C) Testing shall be completed and results submitted to the DAQ within 90 days of permit issuance, unless an alternate date is approved in advance by DAQ.

vi. Additional initial compliance testing upon completion of the SWEP shall be completed as follows:

(A) The Permittee shall be responsible for ensuring, within practicable limits, that the equipment or processes being tested are operated at or near the maximum normal production rate but at a rate not to exceed 120 ODT per hour (not to exceed 657,000 ODT per year on an annual basis).
(B) Testing shall be conducted at the maximum normal operating softwood percentage, not to exceed 80% softwood.
(C) Testing shall be completed and results submitted to the DAQ within 120 days completion of the construction of the SWEP, unless an alternate date is approved in advance by DAQ,

e. Periodic Performance Tests – Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall demonstrate compliance with the BACT emission limits in Section 2.2 A.1.b above by conducting periodic performance tests on the wood-fired direct heat drying system **(ID No. ES-DRYER)**, the green wood hammermills **(ID Nos. ES-GHM-1, ES-GHM-2, and ES-GHM-3)**, the dry hammermills **(ID Nos. ES-HM-1 through ES-HM-8)**, and the pellet presses and coolers **(ID Nos. ES-CLR-1 through ES-CLR-6)**. Periodic testing shall be conducted in accordance with the following:
i. The pollutants and emission sources to be tested during the periodic performance tests are listed in the following table:

Emission Sources	Pollutant
Dryer system/green wood hammermills controlled via WESP and RTO	VOC
	PM/PM10/PM2.5
	NOx
	CO
One pellet cooler cyclone	VOC
	PM/PM10/PM2.5
One dry hammermill baghouse	VOC
	PM/PM10/PM2.5

ii. The Permittee shall conduct periodic compliance testing in accordance with a testing protocol approved by the DAQ.
iii. The Permittee shall submit a protocol to DAQ at least 45 days prior to periodic compliance testing and shall submit a notification of periodic compliance testing at least 15 days in advance of the testing.
iv. The Permittee shall be responsible for ensuring, within practicable limits, that the equipment or processes being tested are operated at or near the maximum normal production rate.
v. To the extent possible, testing shall be conducted at the maximum normal operating softwood percentage.
vi. The Permittee shall conduct periodic performance tests when the following conditions are met:
(A) The monthly average softwood content exceeds the average softwood percentage documented during prior performance testing by more than 10 percentage points, or
(B) The monthly production rate exceeds the average production rate documented during prior performance testing by more than 10 percentage points, or
(C) At a minimum testing shall be conducted annually, unless a longer duration is otherwise approved pursuant to Section 2.2.A.1.e.x. Annual performance tests shall be completed no later than 13 months after the previous performance test.
vii. The Permittee shall notify the DAQ within 15 days when the conditions specified in Section 2.2 A.1.e.vi (A) or (B) are met.
viii. The Permittee shall conduct the periodic performance test and submit a written report of the test results to the DAQ within 90 days from the date the monthly softwood content or overall production rate increased as described in Section 2.2 A.1.e.vi (A) and (B) above, unless an alternate date is approved in advance by DAQ,
ix. When periodic performance testing has occurred at 90 percent softwood AND at 90 percent of the maximum permitted throughput, subsequent periodic performance testing shall occur on an annual

basis and shall be completed no later than 13 months after the previous performance test, unless a longer duration is otherwise approved pursuant to Section 2.2.A.1.e.x.

x. The Permittee may request that the performance tests be conducted less often for a given pollutant if the performance tests for at least 3 consecutive years show compliance with the emission limit. If the request is granted, the Permittee shall conduct a performance test no more than 36 months after the previous performance test for the given pollutant.

xi. If a performance test shows noncompliance with an emission limit for a given pollutant, the Permittee shall return to conducting annual performance tests (no later than 13 months after the previous performance test) for that pollutant.

xii. Except as specified in Section 2.2 A.1.e.viii above, the Permittee shall submit a written report of results for any periodic performance test to the DAQ, not later than 30 days after sample collection, in accordance with 15A NCAC 02D .2602(h).

xiii. The Permittee may re-establish any parametric operating value during periodic testing. Compliance with previously approved parametric operating values is not required during periodic required testing or other tests undertaken to re-establish parametric operating values by the Permittee. If the new parametric operating values re-established during periodic testing are more stringent, the Permittee shall submit a request to revise the value(s) in the permit at the same time the test report required pursuant to General Condition 17 is submitted. The permit revision will be processed pursuant to 15A NCAC 02Q .0514. If, during performance testing, the new parametric operating values are less stringent, the Permittee may request to revise the value(s) in the permit pursuant to 15A NCAC 02Q .0515.

xiv. The Permittee shall comply with applicable emission standards at all times, except as allowed by Section 2.2 A.1.b, including during periods of testing.

Monitoring/Recordkeeping [15ANCAC 02Q .0308(a)]

f. Within six months of issuance of this permit (10386R04), the Permittee shall submit to the DAQ a permit application that includes one of the following:
   i. A revised BACT analysis for VOC emissions from the dry hammermills **(ID Nos. ES-HM-1 to ES-HM-8)** and the pellet presses and pellet coolers **(ID No. ES-CLR-1 to ES-CLR-6)**, OR
   ii. A request for an avoidance condition for 15A NCAC 02D .0530, Prevention of Significant Deterioration, for VOC emissions.

g. Regardless of the actual completion date of the SWEP, the Permittee shall complete the rerouting of the exhaust from green wood hammermills **(ID Nos. ES-GHM-1, ES-GHM-2, and ES-GHM-3)** to the wet electrostatic precipitator **(ID No. CD-WESP)** and the regenerative thermal oxidizer **(ID No. CD-RTO)** within twelve (12) months of issuance of this permit (10368R04).

h. The Permittee shall not increase production beyond 537,625 oven-dried tons (ODT) of pellets per consecutive 12-month period (the permitted maximum production rate in Air Permit No. 10386R03) until exhaust from the green wood hammermills **(ID Nos. ES-GHM-1, ES-GHM-2, and ES-GHM-3)** has been rerouted to the wet electrostatic precipitator **(ID No. CD-WESP)** and the regenerative thermal oxidizer **(ID No. CD-RTO)**.

i. Upon completion of the SWEP, the Permittee shall not process more than 657,000 ODT of pellets per consecutive 12-month period. The process rate shall be recorded monthly in a logbook (written or electronic format) kept on-site and made available to an authorized representative upon request.

j. Upon completion of the SWEP, the Permittee shall not process more than 558,450 ODT of pellets per consecutive 12-month period (85% of the permitted maximum production rate of 657,000 ODT per consecutive 12-month period) from the eight dry hammermills **(ID Nos. ES-HM-1 through ES-HM-8)**. The dry hammermill process rate shall be recorded monthly in a logbook (written or electronic format) kept on-site and made available to an authorized representative upon request.

k. The furnace bypass **(ID No. ES-FBYPASS)** shall be limited to less than 50 hours per year for startups (for temperature control) and shutdowns. The furnace bypass shall be limited to a cold startup of 15% maximum heat input (or 37.6 million Btu per hour). The cold startup period of time begins when the wood-fired furnace is started up and lasts until the wood-fired furnace's refractory

is heated to a temperature sufficient to sustain combustion operations at a minimal level or 8 hours, whichever is less.

l. The furnace bypass **(ID No. ES-FBYPASS)** in idle mode, defined as maximum heat input of 5 million Btu per hour, shall be limited to less than 500 hours per year.

m. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate all emission sources including associated control devices 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 Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

n. The Permittee shall record the hardwood/softwood mix monthly in a logbook (written or electronic format) kept on-site and made available to an authorized representative upon request.

o. The Permittee shall calculate the total emissions of NOx, filterable PM, CO, and VOC monthly and shall record the emissions monthly in a logbook (written or electronic format) kept on-site and made available to DAQ personnel upon request.

p. For the wood-fired direct heat drying system **(ID No. ES-DRYER)**, GHG (CO_2e) emissions shall be calculated monthly and compliance demonstrated using the applicable Part 98 emission factors. Compliance shall be documented on a 12-month rolling basis.

q. To ensure compliance and effective operation of the RTO **(ID No. CD-RTO)**, the Permittee shall maintain a 3-hour rolling average firebox temperature for each of the two fireboxes comprising the RTO at or above the minimum average temperatures established during the most recent performance testing. The Permittee shall maintain records of the 3-hour rolling average temperatures for each firebox. The Permittee shall also perform inspections and maintenance on the RTO as specified above in Section 2.1 A.1.h.

r. To ensure compliance and effective operation of the wet electrostatic precipitator **(ID No. CD-WESP)**, the Permittee shall perform inspections and maintenance as specified above in Section 2.1 A.1.h. The Permittee shall also maintain the minimum secondary voltage and minimum current of the wet electrostatic precipitator as specified above in Section 2.1 A.1.g.

s. To ensure compliance and effective operation of the baghouses and cyclones, the Permittee shall perform inspections and maintenance as specified above in Section 2.1 A.1.e.

t. Monitoring and recordkeeping are not required for the following emission sources:
   i. Paved roads;
   ii. VOC emissions from storage tanks; and
   iii. Emission sources with no BACT emission limits or work practice standards.

Reporting [15A NCAC 02Q .0308(a), 15A NCAC 02D .0605(b)(3)]

u. The Permittee shall submit the results of any maintenance performed on the wet electrostatic precipitator, regenerative thermal oxidizer, cyclones, and/or baghouses within 30 days of a written request by the DAQ.

v. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.2 A.1.f through u above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0535 EXCESS EMISSIONS REPORTING AND MALFUNCTION

As required by 15A NCAC 2D .0535, the Permittee of a source of excess emissions that last for more than four hours and that results from a malfunction, a breakdown of process or control equipment or any other abnormal conditions, shall:

a. Notify the Director or his designee of any such occurrence by 9:00 a.m. Eastern time of the Division's next business day of becoming aware of the occurrence and describe:
   i. the name and location of the facility,
   ii. the nature and cause of the malfunction or breakdown,
   iii. the time when the malfunction or breakdown is first observed,
   iv. the expected duration, and
   v. an estimated rate of emissions.

b. Notify the Director or his designee immediately when the corrective measures have been accomplished.

This reporting requirement does not allow the operation of the facility in excess of Environmental Management Commission Regulations.

3. 15A NCAC 02D .0540: PARTICULATES FROM FUGITIVE DUST EMISSION SOURCES

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(e) and (f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

State-enforceable only

4. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

5. 15A NCAC 02Q .0207: ANNUAL EMISSIONS REPORTING

The Permittee shall report by **June 30** of each year the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by the responsible official of the facility.

6. 15A NCAC 02Q. 0304: APPLICATIONS

The Permittee, at least 90 days prior to the expiration date of this permit, shall request permit renewal by letter in accordance with 15A NCAC 02Q .0304(d) and (f). Pursuant to 15A NCAC 02Q .0203(i), no permit application fee is required for renewal of an existing air permit. The renewal request should be submitted to the Regional Supervisor, DAQ.

7. 15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT

a. The Permittee shall file a Title V Air Quality Permit Application pursuant to 15A NCAC 02Q .0504 to amend the existing Title V first time application (8200152.17B) on or before 12 months after commencing operation of any of the new sources or control devices listed in this permit.

Reporting [15A NCAC 02Q .0504]

b. The Permittee shall notify the Regional Office in writing of the date of beginning operation of any of the new sources or control devices listed in this permit, postmarked no later than 30 days after

SECTION 3 - GENERAL CONDITIONS

1. In accordance with G.S. 143-215.108(c)(1), TWO COPIES OF ALL DOCUMENTS, REPORTS, TEST DATA, MONITORING DATA, NOTIFICATIONS, REQUESTS FOR RENEWAL, AND ANY OTHER INFORMATION REQUIRED BY THIS PERMIT shall be submitted to:

   Heather Carter
   Regional Air Quality Supervisor
   North Carolina Division of Air Quality
   Fayetteville Regional Office
   Systel Building, 225 Green Street, Suite 714
   Fayetteville, NC 28301
   (910) 433-3300

   For identification purposes, each submittal should include the facility name as listed on the permit, the facility identification number, and the permit number.

2. RECORDS RETENTION REQUIREMENT - In accordance with 15A NCAC 02D .0605, any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. These records must be kept on site for a minimum of 2 years, unless another time period is otherwise specified.

3. ANNUAL FEE PAYMENT - Pursuant to 15A NCAC 02Q .0203(a), the Permittee shall pay the annual permit fee within 30 days of being billed by the DAQ. Failure to pay the fee in a timely manner will cause the DAQ to initiate action to revoke the permit.

4. EQUIPMENT RELOCATION - In accordance with 15A NCAC 02Q .0301, a new air permit shall be obtained by the Permittee prior to establishing, building, erecting, using, or operating the emission sources or air cleaning equipment at a site or location not specified in this permit.

5. REPORTING REQUIREMENT - In accordance with 15A NCAC 02Q .0309, any of the following that would result in previously unpermitted, new, or increased emissions must be reported to the Regional Supervisor, DAQ:

   a. changes in the information submitted in the application regarding facility emissions;

   b. changes that modify equipment or processes of existing permitted facilities; or

   c. changes in the quantity or quality of materials processed.

   If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

6. In accordance with 15A NCAC 02Q .0309, this permit is subject to revocation or modification by the DAQ upon a determination that information contained in the application or presented in the support thereof is incorrect, conditions under which this permit was granted have changed, or violations of conditions contained in this permit have occurred. In accordance with G.S. 143-215.108(c)(1), the facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air cleaning device(s) and appurtenances.

7. In accordance with G.S. 143-215.108(c)(1), this permit is nontransferable by the Permittee. Future owners and operators must obtain a new air permit from the DAQ.

8. In accordance with G.S. 143-215.108(c)(1), this issuance of this permit in no way absolves the Permittee of liability for any potential civil penalties which may be assessed for violations of State law which have occurred prior to the effective date of this permit.

9. In accordance with G.S. 143-215.108(c)(1), this permit does not relieve the Permittee of the responsibility of complying with all applicable requirements of any Federal, State, or Local water quality or land quality control authority.

10. In accordance with 15A NCAC 02D .0605, reports on the operation and maintenance of the facility shall be submitted by the Permittee to the Regional Supervisor, DAQ at such intervals and in such form and detail as may be required by the DAQ. Information required in such reports may include, but is not limited to, process weight rates, firing rates, hours of operation, and preventive maintenance schedules.

11. A violation of any term or condition of this permit shall subject the Permittee to enforcement pursuant to G.S. 143-215.114A, 143-215.114B, and 143-215.114C, including assessment of civil and/or criminal penalties.

12. Pursuant to North Carolina General Statute 143-215.3(a)(2), no person shall refuse entry or access to any authorized representative of the DAQ who requests entry or access for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

13. In accordance with G.S. 143-215.108(c)(1), this permit does not relieve the Permittee of the responsibility of complying with any applicable Federal, State, or Local requirements governing the handling, disposal, or incineration of hazardous, solid, or medical wastes, including the Resource Conservation and Recovery Act (RCRA) administered by the Division of Waste Management.

14. PERMIT RETENTION REQUIREMENT - In accordance with 15A NCAC 02Q .0110, the Permittee shall retain a current copy of the air permit at the site. The Permittee must make available to personnel of the DAQ, upon request, the current copy of the air permit for the site.

15. CLEAN AIR ACT SECTION 112(r) REQUIREMENTS - Pursuant to 15A NCAC 02D .2100 "Risk Management Program," if the Permittee is required to develop and register a risk management plan pursuant to Section 112(r) of the Federal Clean Air Act, then the Permittee is required to register this plan with the USEPA in accordance with 40 CFR Part 68.

16. PREVENTION OF ACCIDENTAL RELEASES - GENERAL DUTY - Pursuant to Title I Part A Section 112(r)(1) of the Clean Air Act "Hazardous Air Pollutants - Prevention of Accidental Releases - Purpose and General Duty," although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release. **This condition is federally-enforceable only.**

17. GENERAL EMISSIONS TESTING AND REPORTING REQUIREMENTS - If emissions testing is required by this permit, or the DAQ, or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow all DAQ procedures including protocol approval, regional notification, report submittal, and test results approval.

Permit issued this the 2nd day of October, 2019.

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

for

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ
By Authority of the Environmental Management Commission