ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

DRAFT

Mr. Royal Smith
EVP of Operations
Enviva Pellets Hamlet, LLC
7200 Wisconsin Avenue
Bethesda, Maryland 20814

Dear Mr. Smith:

SUBJECT: Air Quality Permit No. 10365R03
Facility ID: 7700096
Enviva Pellets Hamlet, LLC
Hamlet, North Carolina
Richmond County
PSD Status: Major
Fee Class: Title V

In accordance with your Air Permit Application received on May 14, 2018 we are forwarding herewith Air Quality Permit No. 10365R03 to Enviva Pellets Hamlet, LLC, 1125 North NC Highway 177, Hamlet, 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 2Q .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 GS 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 GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

Richmond County has triggered increment tracking under PSD for NOx, PM-10, and PM-2.5. This modification will result in an increase of 3.61 pounds per hour of NOx, a decrease of 7.12 pounds per hour of PM-10, and a decrease of 4.26 pounds per hour of PM-2.5.

This Air Quality Permit shall be effective from DRAFT until February 28, 2021, 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 Kevin Godwin at (919) 707-8480 or kevin.godwin@ncdenr.gov.

Sincerely yours,

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

c: EPA Region 4
Heather Carter, Supervisor, Fayetteville Regional Office
Shannon Vogel, Stationary Source Compliance Branch
Central Files
Connie Horne (Cover letter only)

## ATTACHMENT

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

| Emission Source ID No. | Emission Source Description |
|---|---|
| IES-CHIP-1 | Log chipping (138 tons per hour) |
| IES-BARKHOG | Bark hog (25 tons per hour) |
| IES-GWH | Green wood handling operations |
| IES-GN | Emergency generator (671 brake horsepower) |
| IES-FWP | Fire water pump (131 brake horsepower) |
| IES-DRYSHAVE | Dried shaving material handling (25 tons per hour) |
| IES-TK-1 | Diesel fuel storage tank (1,000 gallons capacity) |
| IES-TK-2 | Diesel fuel storage tank (185 gallons capacity) |
| IES-TK-3 | Diesel fuel storage tank (5,000 gallons capacity) |
| IES-GWSP-1 through IES-GWSP-4 | Green wood storage piles |
| IES-BFSP-1 and IES-BFP-2 | Bark fuel storage piles |
| IES-BFB | Bark fuel bin |
| IES-DEBARK-1 | De-barker (275 tons per hour) |

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee 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 the existing Air Permit:

| Page No. | Section | Description of Changes |
|---|---|---|
| N/A | Attachment – List of Insignificant Activities | Included the following sources:<br>Log Chipping (ID No. IES-CHIP-1),<br>Bark Hog (ID No. IES-BARKHOG),<br>Emergency Generator (ID No. IES-GN),<br>Fire water pump (ID No. IES-FWP),<br>Dried shaving material handling (ID No. IES-DRYSHAVE),<br>Bark fuel storage piles (ID No. IES-BFSP-1 and 2),<br>Bark fuel bin (ID No. IES-BFB).<br><br>Updated storage tank capacities as follows:<br>Diesel fuel storage tank (ID No. IES-TK-1, 1,000 gallons capacity),<br>Diesel fuel storage tank (ID No. IES-TK-2, 185 gallons capacity),<br>Diesel fuel storage tanks (ID No. IES-TK-3, 5,000 gallons capacity). |

| Page No. | Section | Description of Changes |
|---|---|---|
| 3 | Table of Permitted Emission Sources | Removed the PSD designation throughout the table.<br><br><u>Included the following sources and control devices:</u><br>Hammermill collection conveyor (ID No. ES-HMC) controlled by bagfilter (ID No. CD-HMC-BH),<br>Pellet cooler high-pressure fines relay (ID No. ES-PCHP) controlled by bagfilter (ID No. CD-PCHP-BH),<br>Pellet cooler low-pressure fines relay (ID No. ES-PCLP) controlled by bagfilter (ID No. CD-PCLP-BH),<br>Pellet dust collection transfer bin (ID No. PDCTB) controlled by bagfilter (ID No. CD-PDCTB-BH),<br>Additive handling and storage (ID No. ES-ADD) controlled by bagfilter (ID No. CD-ADD-BH).<br><br>Removed cyclones as control devices.<br><br>Removed Hammermill Area (ID No. ES-HMA) emission point.<br><br>Changed the Pellet Loadout Bins from eight (8) to two (2) bins (ID Nos. ES-PB-1 and 2)<br><br>Included new regenerative thermal oxidizer (ID No. CD-RTO-1) installed on Green wood hammermills (ID No. GMH-1 through 3) and Rotary dryer (ID No. ES-DRYER).<br><br>Included new wet scrubber (ID No. CD-WSB) and regenerative catalytic oxidizer (ID No. CD-RCO) installed on Pellet coolers (ID Nos. ES-CLR-1 through 6)<br><br><u>Moved the following sources to the insignificant activity list:</u><br>Log Chipping (ID No. IES-CHIP-1),<br>Bark Hog (ID No. IES-BARKHOG),<br>Emergency Generator (ID No. IES-GM), and<br>Fire water pump (ID No. IES-FWP). |
| 4 | 2.1 A. | Updated emission source description to reflect the proposed emission source configuration. |
| 5 | 2.1 A.1 | Updated the 15A NCAC 02D .0515 condition to reflect the proposed control device configuration. |
| 8 | 2.2 A.2. | Removed the existing PSD condition and replaced with a PSD avoidance condition. |

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 |
|---|---|---|---|
| 10365R03 | 10365R02 | DRAFT | February 28, 2021 |

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 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, 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 Hamlet, LLC** |
| **Facility ID:** | **7700096** |
| **Facility Site Location:** | **1125 North NC Highway 177** |
| **City, County, State, Zip:** | **Hamlet, Richmond County, North Carolina, 28345** |
| **Mailing Address:** | **7200 Wisconsin Avenue** |
| **City, State, Zip:** | **Bethesda, Maryland 20814** |
| **Application Number:** | **7700096.18A** |
| **Complete Application Date:** | **June 6, 2017** |
| **Primary SIC Code:** | **2499** |
| **Division of Air Quality, Regional Office Address:** | **Fayetteville Regional Office<br>Systel Building<br>225 Green Street, Suite 714<br>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, and ES-GHM-3 | Green wood hammermills | CD-WESP | One wet electrostatic precipitator (square feet of collector plate area to be determined) in series with |
| | | CD-RTO-1 | One natural gas-fired regenerative thermal oxidizer (32 million Btu per hour heat input) |
| ES-DRYER **02D .1112 Case-by-case MACT** | Green wood direct-fired rotary dryer system (250.4 million Btu per hour heat input) | CD-WESP | One wet electrostatic precipitator (square feet of collector plate area to be determined) in series with |
| | | CD-RTO-1 | One natural gas-fired regenerative thermal oxidizer (32 million Btu per hour heat input) |
| ES-DWH | Dried wood handling | CD-DWH-BH-1 and CD-DWH-BH-2 | Two bagfilters (square feet filter surface to be determined) operating in parallel |
| ES-HM-1 through ES-HM-8 **02D .1112 Case-by-case MACT** | Eight (8) hammermills | CD-HM-BH-1 through CD-HM-BH-8 | Eight (8) bagfilters (square feet filter surface area to be determined) |
| ES-HMC | Hammermill collection conveyor | CD-HMC-BH | One bagfilter (square feet filter surface area to be determined) |
| ES-PMFS | Pellet mill feed silo | CD-PMFS-BH | One bagfilter (square feet of filter surface area to be determined) |
| ES-CLR-1 through ES-CLR-6 **02D .1112 Case-by-case MACT** | Six (6) pellet coolers | CD-WSB | One wet scrubber (minimum liquid injection rate to be determined) |
| | | CD-RCO | One natural gas-fired regenerative catalytic oxidizer (32 million Btu per hour heat input) |
| ES-PCHP | One pellet cooler high-pressure fines relay system | CD-PCHP-BH | One bagfilter (square feet of filter surface area to be determined) |
| ES-PCLP | One pellet cooler low-pressure fines relay system | CD-PCLP-BH | One bagfilter (square feet of filter surface area to be determined) |
| ES-PDCTB | One pellet dust collection transfer bin | CD-PDCTB-BH | One bagfilter (square feet of filter surface area to be determined) |
| ES-FPH, ES-PB1, ES-PB2, ES-PL-1 through ES-PL-3 | Finished product handling and two (2) pellet loadout bins and three (3) pellet mill loadouts | CD-FPH-BH | One bagfilter (square feet of filter surface area to be determined) |

| Emission Source ID No. | Emission Source Description | Control Device ID No. | Control Device Description |
|---|---|---|---|
| ES-ADD | Additive handling and storage | CD-ADD-BH | One bagfilter (square feet of filter surface area to be determined) |

# 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. Green wood hammermills (ID Nos. ES-GHM-1, 2, and 3), Rotary dryer system (ID No. ES-DRYER), Dried wood handling (ID No. ES-DWH), Hammermills (ID Nos. ES-HM-1 through ES-HM-8), Hammermill collection conveyor (ID No. ES-HMC), Pellet mill feed silo (ID No. ES-PMFS), Pellet coolers (ID Nos. ES-CLR-1 through ES-CLR-6), Pellet cooler high-pressure fines relay system (ID No. ES-PCHP), Pellet cooler low-pressure fines relay system (ID No. ES-PCLP), Pellet dust collection system transfer bin (ID No. ES-PDCTB), Finished product handling and load-out bins (ID Nos. ES-FPH, ES-PB-1 and ES-PB-2), and Additive handling and storage (ID No. ES-ADD)**

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<br>$E = 55 \times P^{0.11} - 40$ for $P \geq 30$ tph<br><br>where, E = allowable emission rate (lb/hr)<br>P = process weight rate (tph) | 15A NCAC 02D .0515 |
| Sulfur dioxide | 2.3 pounds per million Btu | 15A NCAC 02D .0516 |
| Visible emissions | 20 percent opacity when averaged over a 6-minute period | 15A NCAC 02D .0521 |
| Hazardous Air Pollutants (HAP) | See Section 2.1 A.4. | 15A NCAC 02D .1112<br>[§ 112(g) Case-by-case MACT] |

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Volatile organic compounds (VOC), Nitrogen Oxides (NOx), and Carbon Monoxide (CO) | Less than 250 tons per consecutive 12-month period, See Section 2.2 A.2. | 15A NCAC 02Q .0317 for avoidance of 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: [15A NCAC 02D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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. Under the provisions of NCGS 143-215.108, the Permittee shall test the outlet of the regenerative thermal oxidizer (ID No. CD-RTO-1) and the regenerative catalytic oxidizer (ID No. CD-RCO) for total suspended particulate (TSP) in accordance with a testing protocol approved by the DAQ. Testing shall be completed and the results submitted within 180 days of commencement of operation unless an alternate date is approved by the DAQ.

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

c. The Permittee shall maintain production records such that the process rates "P" in tons per hour, as specified by the formulas contained above (or the formulas contained in 15A NCAC 02D .0515), can be derived, and shall make these records available to a DAQ authorized representative upon request.

d. Particulate matter emissions from the green wood hammermills (ID No. ES-GHM-1, 2, and 3) and rotary dryer (ID No. ES-DRYER) shall be controlled by one wet electrostatic precipitator (ID No. CD-WESP) in series with on regenerative thermal oxidizer (ID No. CD-RTO-1). Particulate matter emissions from dried wood handling (ID No. ES-DWH) shall be controlled by two bagfilters (ID Nos. CD-DWH-BH-1 and 2) operating in parallel. Particulate matter emissions from hammermills (ID No. ES-HM-1 through 8) shall be controlled by bagfilters (ID No. CD-HM-BH-1 through 8). Particulate matter emissions from the hammermill collection conveyor (ID No. ES-HMC) shall be controlled by a bagfilter (ID No. CD-HMC-BH). Particulate matter emissions from the pellet mill feed silo (ID No. ES-PMFS) shall be controlled by a bagfilter (ID No. CD-PMFS-BH). Particulate matter emissions from pellet coolers (ID Nos. ES-CLR-1 through 6) shall be controlled by a wet scrubber (ID No. CD-WSB) in series with a regenerative catalytic oxidizer (ID No. CD-RCO). Particulate matter emissions from the pellet cooler high-pressure fines relay system (ID No. ES-PCHP) shall be controlled by a bagfilter (ID No. CD-PCHP-BH). Particulate matter emissions from the pellet cooler low-pressure fines relay system (ID No. ES-PCLP) shall be controlled by a bagfilter (ID No. CD-PCLP). Particulate matter from the pellet dust collection transfer bin (ID No. ES-

PDCTB) shall be controlled by a bagfilter (ID No. CD-PDCTB-BH). Particulate matter emissions from the finished product handling (ID No. ES-FPH) and pellet loadout bins (ID No. ES-PB1 and 2) shall be controlled by a bagfilter (ID No. CD-FPH-BH). Particulate matter emissions from the additive handling and storage (ID No. ES-ADD) shall be controlled by a bagfilter (ID No. CD-ADD-BH).

*For bagfilters:*
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 unit for leaks, and
ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

*For WESP:*
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:

> The Permittee shall establish the minimum primary voltage and minimum current within the first 30 days following the commencement of operation of the dryer. To assure compliance and effective operation of the wet electrostatic precipitator, the Permittee shall monitor and record the primary voltage and minimum current through the precipitator for each day of the calendar year period that the dryer system is operated. The Permittee shall be allowed three (3) days of absent observations per semi-annual period.

*For RTO and RCO*:
To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer.

e. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log 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; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

**Reporting**

f. The Permittee shall submit the results of any maintenance performed on the WESP, bagfilters, and bin vent filters within 30 days of a written request by the DAQ.

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

a. Emissions of sulfur dioxide from these sources 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. [15A NCAC 2D .0516]

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17. found in Section 3.

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from firing biomass in the dryer system or natural gas in the thermal oxidizers.

**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. [15A NCAC 02D .0521 (d)]

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17. found in Section 3.

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

c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources 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. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of the permit. If visible emissions from this source 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 2D .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 log (written or electronic format) on-site and made available to an authorized representative upon request. The log 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)]

e. No reporting is required.

**4. 15A NCAC 02D .1112 National Emissions Standards for Hazardous Air Pollutants, 112(g) Case-by-Case Maximum Achievable Control Technology** – 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.

**Testing** [15A NCAC 02D .0530]

a. Under the provisions of NCGS 143-215.108, the Permittee shall test outlet of the regenerative thermal oxidizer (ID No. CD-RTO-1) for HAPs in accordance with a testing protocol approved by the DAQ.

   Initial testing shall be completed and the results submitted within 180 days of commencement of operation unless an alternate date is approved by the DAQ.

b. **Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0308(a)]
   No monitoring, recordkeeping, or reporting is required.

## 2.2- Multiple Emission Source(s) Specific 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 |
|---|---|---|
| Fugitive dust | Minimize fugitive dust beyond property boundary | 15A NCAC 02D .0540 |
| VOC<br>NOx<br>CO | Less than 250 tons per 12-month period,<br>Less than 250 tons per 12-month period,<br>Less than 250 tons per 12-month period | 15A NCAC 02Q .0317 for avoidance of 15A NCAC 02D .0530 |

1. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540] - STATE ENFORCEABLE ONLY
   As required by 15A NCAC 2D .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(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).

2. **15A NCAC 02Q .0317 for avoidance of 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**
   a. In order to avoid applicability of 15A NCAC 2D .0530(g), the above emission sources shall discharge into the atmosphere less than 250 tons of volatile organic compounds (VOC), nitrogen oxides (NOx), and carbon monoxide (CO) per consecutive 12-month period. [15A NCAC 2D .0530]

   b. To ensure that the limits established above are not exceeded,
      i. the greenwood hammermills and pellet dryer will be controlled by a regenerative thermal oxidizer (ID No. CD-RTO-1),
      ii. the pellet mills and pellet coolers will be controlled by a regenerative catalytic oxidizer (ID No. CD-RCO), and
      iii. the facility will not process more than 625,011 oven dried tons per year (ODT/year) with a maximum of 85% softwood , on a rolling 12-month average basis, with the exceptions as noted in Section 2.2A.2.c below.

   **Testing** [15A NCAC 02Q .0508(f)]

   c. Under the provisions of NCGS 143-215.108, the Permittee shall test the outlet of the regenerative thermal oxidizer (ID No. CD-RTO-1) and regenerative catalytic oxidizer (ID No. CD-RCO) for VOC, NOx and CO, and dry hammermills (CD HM BH1 through 8), in accordance with a testing protocol approved by the DAQ. Testing shall be completed and the results submitted within 180 days of commencement of operation unless an alternate date is approved by the DAQ.

   The Permittee may process more than 625,011 ODT per rolling 12-month period if the average softwood percentage in that rolling 12-month period is less than 85% such that the rolling 12-month VOC, NOx, and CO emissions do not exceed 241 tpy, 236 tpy, and 231 tpy, respectively. In order to increase the pellet

production above 625,011 ODT per year on a 12-month rolling average at softwood percentages below 85%, the Permittee shall establish VOC, $NO_x$ and CO emission factors at the lower softwood percentages and increased throughputs by testing the outlet of the regenerative thermal oxidizer (ID No. CD-RTO-1) and regenerative catalytic oxidizer (ID No. CD-RCO) for VOC, NOx and CO, and by testing the dry hammermills (CD HM BH1 through 8) for VOC, in accordance with a testing protocol approved by the DAQ. Following approval of the emissions test report by the DAQ the Permittee shall provide written notification at least 30 days in advance to the Regional Office of the date the facility plans to implement a program/strategy to increase throughput beyond 625,011 ODT per year and the applicable new maximum softwood percentage. The process rate, softwood percentage, and corresponding emission rate shall be recorded in a monthly log kept on-site. Calculations and the total amount of VOC, $NO_x$, and CO emissions shall be recorded monthly in a log (written or electronic format) kept on site and made available to DAQ personnel upon request. The Permittee shall confirm that the 12-month rolling VOC, $NO_x$ and CO emissions remain below the limits.

**Monitoring and Recordkeeping** [15A NCAC 02Q .0508 (f)]
**Regenerative Thermal Oxidizer and Regenerative Catalytic Oxidizer**

d. The Permittee shall install, calibrate, operate, maintain, and inspect a continuous temperature monitoring, and recording system, in accordance with manufacturer's recommendations, for the regenerative thermal oxidizer and regenerative catalytic oxidizer (**ID Nos. CD-RTO-1 and CD-RCO**) to monitor the temperature in the combustion chamber (the second half of the oxidizer away from the flame zone) to ensure the average combustion temperature does not drop below the temperature range established during the performance test.
e. The Permittee shall develop and maintain a written malfunction plan for the temperature monitoring and recording system that describes, in detail, the operating procedures for periods of malfunction and a protocol to address malfunctions so that corrective actions can immediately be investigated. The malfunction plan shall identify malfunctions, as described by the manufacturer, and ensure the operators are prepared to correct such malfunctions as soon as practical. The Permittee shall keep any necessary parts for routine repairs of the temperature monitoring and recording system readily available.
f. The Permittee shall perform periodic inspection and maintenance for the oxidizers as recommended by the manufacturer. At a minimum, the Permittee shall perform an annual internal inspection of the primary heat exchanger and associated inlet/outlet valves of the control device to ensure structural integrity.
g. The process rate and hardwood/softwood mix shall be recorded in a monthly log kept on site.

The results of the calculations and the total amount of VOC, NOx, and CO emissions shall be recorded monthly in a logbook (written or electronic format) and made available to an authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the records of VOC, NOx, and CO emissions are not calculated monthly, or if the emissions exceed the limit established in Section 2.2. A. 2. a. above.

h. For the dryer system, GHG ($CO_2e$) emissions shall be calculated on a monthly basis and compliance demonstrated using the applicable Part 98 emission factors. Compliance shall be documented on a 12-month rolling basis.

**Reporting** [15A NCAC 02Q .0508 (f)]

i. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities 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. The report shall contain the following:
    i. The monthly VOC, NOx, and CO emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.
    ii. A report indicating and explaining all instances of the average minimum regenerative thermal oxidizer and regenerative catalytic oxidizer combustion chamber temperature falling below the temperature

range established during the performance test or noting that no such instances have occurred.

j. All instances of deviations from the requirements of this permit must be clearly identified.

## 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 28301-5043
   (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 2D .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 2Q .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 2Q .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 2Q .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 2Q .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), the 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 2D .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 2Q .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 2D .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 2D .2600 and follow all DAQ procedures including protocol approval, regional notification, report submittal, and test results approval.

Permit issued this the XX day of XX.

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

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