



ROY COOPER  
*Governor*

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MICHAEL A. ABRACZINSKAS  
*Acting Director*

April 7, 2017

Mr. Norb Hintz  
Senior Vice President and Chief Engineer  
Enviva Pellets Hamlet, LLC  
7200 Wisconsin Avenue, Suite 1000  
Bethesda, Maryland 20814

Dear Mr. Hintz:

SUBJECT: Air Quality Permit No. 10365R01  
Facility ID: 7700096  
Enviva Pellets Hamlet, LLC  
Hamlet, North Carolina  
Richmond County  
PSD Status: Major  
Fee Class: Title V

In accordance with your request for an administrative amendment received February 14, 2017 we are forwarding herewith Air Quality Permit No. 10365R01 to Enviva Pellets Hamlet, LLC, 1039 North 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.

Mr. Norb Hintz

April 7, 2017

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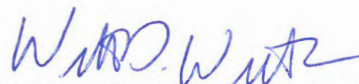
You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become 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 NO<sub>x</sub>, PM-10, and PM-2.5. However, this administrative amendment does not consume or expand increments for any pollutants.

This Air Quality Permit shall be effective from April 7, 2017 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.

Sincerely yours,



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

- c: EPA Region 4
- Steven Vozzo, 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-GWHS	Green wood handling and sizing operations
IES-DWHS	Dried wood handling and sizing operations
IES-TK-1	Diesel fuel storage tank (up to 2,500 gallons capacity)
IES-TK-2	Diesel fuel storage tank (up to 1,000 gallons capacity)
IES-TK-3	Diesel fuel storage tank (up to 2,500 gallons capacity)
IES-GWSP-1 and IES-GWSP-2	Green wood storage piles
IES-DEBARK-1	De-barker
IES-GWFB	Green wood fuel bin

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 GACT see the DAQ page titled "The Regulatory Guide for Insignificant Activities/Permits Exempt Activities". The link to this site is as follows: <http://daq.state.nc.us/permits/insig/>



State of  
Department  
Division of

North Carolina  
of Environmental Quality  
Air Quality

# AIR QUALITY

# PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
10365R01	1036R00	April 7, 2017	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:** 1039 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:** 7700096.17A  
**Complete Application Date:** February 14, 2017

**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

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(Including specific requirements, testing, monitoring, recordkeeping, and  
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## 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:

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
ES-CHIP-1 <b>PSD</b>	Log chipping	N/A	N/A
ES-GHM-1 and ES-GHM-2 <b>PSD</b>	Green wood hammermills	CD-GHM-CYC1 and CD-GHM-CYC2	Two simple cyclones (54 inches in diameter each)
ES-BARKHOG <b>PSD</b>	Bark hog	N/A	N/A
ES-DRYER <b>PSD</b> 2D .1112 <b>Case-by-case MACT</b>	Wood-fired direct heat drying system (250.4 million Btu per hour heat input)	CD-DC1, CD-DC2, CD-DC3, CD-DC4, and CD-WESP	Four simple cyclones (132 inches in diameter each) in series with one wet electrostatic precipitator (29,904 square feet of collector plate area)
ES-HM-1 through ES-HM-8 <b>PSD</b> 2D .1112 <b>Case-by-case MACT</b>	Eight (8) hammermills	CD-HM-CYC-1 through CD-HM-CYC-8, and CD-HM-BF1 through CD-HM-BF8	Eight (8) simple cyclones (96 inches in diameter each) in series with eight (8) bagfilters (2,168 square feet of filter area each)
ES-HMA & ES-PFB <b>PSD</b> 2D .1112 <b>Case-by-case MACT</b>	Hammermill area and Pellets fines bin	CD-PFB-BV	One bagfilter (1,520 square feet of filter area)
ES-PMFS <b>PSD</b>	Pellet mill feed silo	CD-PMFS-BV	One bin vent filter (377 square feet of filter area)
ES-PSTB <b>PSD</b>	Pellet sampling transfer bin	CD-DC-BV3	One bin vent filter (377 square feet of filter area)



<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
ES-CLR-1 through ES-CLR-6 <b>PSD</b> <b>2D .1112</b> <b>Case-by-case</b> <b>MACT</b>	Six (6) pellet coolers	CD-CLR-1 through CD-CLR-6	Six (6) simple cyclones (54 inches in diameter) installed one each on the coolers
ES-FPH, ES-PB-1 through ES-PB-8, ES-PL-1 and ES-PL-3 <b>PSD</b>	Finished product handling, eight (8) pellet load-out bins, and three (3) pellet mill loadouts	CD-FPH-BF	One bagfilter (4,842 square feet of filter area)
ES-DWH <b>PSD</b>	Dried and sized wood handling	CD-DC-BV1 and CD-DC-BV2	Two bin vent filters (377 square feet of filter area each)
ES-GN <b>PSD</b> <b>MACT</b> <b>Subpart</b> <b>ZZZZ</b> <b>NSPS</b> <b>Subpart IIII</b>	Diesel-fired emergency generator (250 brake horsepower)	N/A	N/A
ES-FWP <b>PSD</b> <b>MACT</b> <b>Subpart</b> <b>ZZZZ</b> <b>NSPS</b> <b>Subpart IIII</b>	Diesel-fired fire emergency water pump (250 brake horsepower)	N/A	N/A

## 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. Log Chipping (ID No. ES-CHIP-1), Bark Hog (ID No. ES-BARKHOG), Wood-fired direct heat drying system (ID No. ES-DRYER), Hammermills (ID Nos. ES-GHM-1 and GHM-2, ES-HM-1 through HM-8), Hammermill Area Filter (ID No. ES-HMA), Pellet Mill Feed Silo (ID No. ES-**

**PMFS), Pellet Sampling and Transfer Bin (ID No. ES-PSTB), Pellet Coolers (ID Nos. ES-CLR-1 through CLR-6), Pellets Fines Bin (ID No. ES-PFB), Finished Product Handling (ID No. ES-FPH), Pellet Load-out Bins (ID Nos. ES-PB-1 through PB-8), and Pellet Mill Load-out (ID No. ES-PL-1 through PL-3), Dried and Sized Wood Handling (ID No. ES-DWH)**

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	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
HAPS	See Section 2.1 A.4.	15A NCAC 02D .1112 [§ 112(g) Case-by-case MACT]
PM/PM-10/PM-2.5, NOx VOC CO GHG	BACT Limits, See Section 2.2 A.2.	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)]

$$E = 4.10 \times P^{0.67} \quad \text{for } P < 30 \text{ tph}$$

$$E = 55 \times P^{0.11} - 40 \quad \text{for } P \geq 30 \text{ tph}$$

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 wet electrostatic precipitator (ID No. CD-WESP) 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 2D .0515) can be derived, and shall make these records available to a DAQ authorized representative upon request.
- d. Particulate matter emissions from the wood-fired dryer (ID No. ES-DRYER) shall be controlled by four (4) cyclones (ID Nos. CD-DC-1 through DC-4) in series with one wet electrostatic precipitator (ID No. CD-WESP). Particulate matter emissions from the hammermills (ID Nos. ES-GHM-1 and 2, ES-HM-1 through 8) shall be controlled by cyclones and bagfilters (ID Nos. CD-GMH-CYC1 and CD-GHM-CYC2, CD-HM-CYC-1 through 8, and CD-HM-BF-1 through 8). Particulate matter emissions from the hammermill area (ID No. ES-HMA) and the pellets fines bin (ID No. ES-PFB) shall be controlled by a bin vent filter (ID No. CD-PFB-BV). Particulate matter emissions from the pellet mill feed silo (ID No. ES-PMFS) shall be controlled by a bin vent filter (ID No. CD-PMFS-BV). Particulate matter emissions from the pellet sampling and transfer bin (ID No. ES-PSTB) shall be controlled by a bin vent filter (ID No. CD-DC-BV3). Particulate matter emissions from the pellet coolers (ID Nos. ES-CLR-1 through 6) shall be controlled by cyclones (ID Nos. CD-CLR-1 through 6). Particulate matter emissions from finished product handling (ID No. ES-FPH), pellet mill load-out bins (ID Nos. ES-PB-1 through 8), and pellet mill load-out (ID No. ES-PL-1 through 3) shall be controlled by a bagfilter (ID No. CD-FPH-BF). Particulate matter emissions from the dried and sized wood handling (ID No. ES-DWH) shall be controlled by two bin vent filters (ID Nos. CD-DC-BV1 and BV2).

*For bagfilters, bin vent filters, and cyclones:*

To assure 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.
- ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

*For WESP:*

To assure 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.

- 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, cyclones, 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.

**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 assure compliance, once a month the Permittee shall observe the emission points of this source 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 North Carolina General Statute 143-215.108, the Permittee shall establish emission factors by conducting an initial performance test on the dryer system for formaldehyde, methanol, acetaldehyde, and propionaldehyde utilizing EPA reference methods, as in effect on the date of permit issuance, contained in 40 CFR 60, Appendix A, or 40 CFR 63 AND in accordance with a testing protocol (using testing protocol submittal form) approved by the Division of Air Quality. The sum of the above HAPs will be multiplied by a correction factor of 1.04 to determine total HAPs for the dryer system.

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.

**B. Emergency Generator (ID No. ES-GN) and Fire Water Pump (ID No. ES-FWP)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Hazardous air pollutants (HAP)	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) No additional requirements per 63.6590(c)	15A NCAC 02D .1111 (40 CFR 63, Subpart ZZZZ)
NMHC and NO <sub>x</sub> , CO, PM	0.20 g/kW for PM; 3.5 g/kW for CO; and 4 g/kW for NO <sub>x</sub> + NMHC	15A NCAC 02D .0524 (40 CFR 60, Subpart IIII)

**1. 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 02D .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 the firing of diesel fuel in these sources.

**2. 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 assure 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 sources in the first 30 days following commencement of operation. If visible emissions from these sources 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 .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 F.2. 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.

**3. 15A NCAC 02D .0524 NEW SOURCE PERFORMANCE STANDARDS [40 CFR 60 Subpart III]**

- a. The provisions of this subpart are applicable to manufacturer, owners, and operators of stationary compression ignition (CI), reciprocating internal combustion engines (RICE). The Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, recordkeeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR Part 60 Subpart III, including Subpart A “General Provisions.”

**Emission Standards**

*Emergency and Fire Pump Engines*

- b. Pursuant to 40 CFR §60.4205(b), owners and operators must comply with the following emission standards:

<b>Pollutant</b>	<b>Emission Limit (g/kW-hr)</b>	<b>Emission Limit (g/bhp-hr)</b>
CO	3.5	2.6
PM	0.2	0.15
NMHC + NO <sub>x</sub>	4.0	3.0

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

- c. The Permittee shall operate the stationary ICE of emergency generators according to the requirements in paragraphs (f)(1) through (3) of §60.4211. In order for the engine to be considered an emergency stationary ICE under this Subpart, any operation other than emergency operation, maintenance and

testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of §60.4211, is prohibited. If the Permittee does not operate the engine according to the requirements in paragraphs (f)(1) through (3) of §60.4211, the engine will not be considered an emergency engine under this Subpart and shall meet all requirements for non-emergency engines.

- i. There is no time limit on the use of emergency stationary ICE in emergency situations.
- ii. The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of §60.4211 for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of §60.4211 counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
  - (A) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
  - (B) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - (C) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of §60.4211, the 50 hours per calendar year for nonemergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
  - (A) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
    - (AA) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
    - (BB) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
    - (CC) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
    - (DD) The power is provided only to the facility itself or to support the local transmission and distribution system.
    - (EE) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[§60.4211(f)]

- d. Pursuant to 40 CFR §60.4206, owners and operators must operate and maintain the stationary RICE according to the manufacturer’s written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

Fuel Requirements for Owners and Operators

- e. Pursuant to 40 CFR §60.4207, owners and operators must use fuel with a maximum sulfur content of 15 ppmw and a cetane index of at least 40.
- f. Pursuant to 40 CFR §60.4209(a), the owner or operator must install a non-resettable hour meter prior to start-up of the engines.

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

- g. Starting with the emergency engine model year 2011, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [§60.4214(b)]

**4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (40 CFR 63 Subpart ZZZZ)**

- a. Pursuant to §63.6580, Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.
- b. Pursuant to §63.6590(c), a new emergency stationary RICE with a site rating of less than or equal to 500 horsepower located at a major source must meet the requirements of 40 CFR Part 60, Subpart IIII, for compression ignition engines. No further requirements apply for such engines under this part.

**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:

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Fugitive dust	Minimize fugitive dust beyond property boundary	15A NCAC 02D .0540
PM/PM-10/PM-2.5, NOx, CO, VOC, and GHG	BACT Limits	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 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" as promulgated in 40 CFR 51.166. [15A NCAC 02D .0530]
- b. The following emission limits shall not be exceeded except during periods of start-up, shut-down, or malfunction. [15A NCAC 02D .0530]:

Unit	Pollutant	BACT Limit*	Units	Averaging Period	Technology
Dryer system	NOx	0.20	lb/MMBtu	3-hour	Good Combustion Practices/low NOx burners
	PM PM10/2.5	0.105 (filterable only)	lb/ODT	3-hour	Cyclones/WESP
	CO	0.21	lb/MMBtu	3-hour	Process Design
	VOC** GHG	1.07 229,828	lb/ODT tpy (CO <sub>2</sub> e)	3-hour Annual	Process Design Good Operating Practices
Green Wood Hammermills	PM/PM10/2.5	0.022/0.0057/0.0007 (filterable only)	gr/dscf	3-hour	Cyclones
	VOC**	0.27	lb/ODT	3-hour	Good operating and maintenance procedures
Dry Hammermills	PM/PM10/2.5	0.004/0.004/0.000014 (filterable only)	gr/dscf	3-hour	Cyclones & Bagfilter
	VOC**	0.24	lb/ODT	3-hour	Process Design
Pellet Mill Feed Silo	PM/PM10/2.5	0.004 (filterable only)	gr/dscf	3-hour	Bin vent filter
Hammermill Area and Pellet Mill Fines Bin	PM/PM10/2.5	0.004 (filterable only)	gr/dscf	3-hour	Bin vent filter
Pellet Sampling and Transfer bin	PM/PM10/2.5	0.004 (filterable only)	gr/dscf	3-hour	Bin vent filter
Dried and Sized Wood Handling	PM/PM10/2.5	0.004 (filterable only)	gr/dscf	3-hour	Bin vent filter
Final Product Handling	PM/PM10/2.5	0.004/0.004/0.000014 (filterable only)	gr/dscf	3-hour	Bagfilter
Pellet Coolers	PM/PM10/2.5	0.022/0.0057/0.0007 (filterable only)	gr/dscf	3-hour	Cyclones
	VOC**	0.85	lb/ODT	3-hour	Process Design
Log Bark Hog	VOC	N/A	N/A	N/A	Fugitive

Unit	Pollutant	BACT Limit*	Units	Averaging Period	Technology
Chipper	VOC	N/A	N/A	N/A	Fugitive
Green Wood Handling	PM/PM10/2.5	N/A	N/A	N/A	Inherent Moisture content
Storage Piles	PM/PM10/2.5	N/A	N/A	N/A	Inherent Moisture content Fugitive
	VOC	N/A	N/A	N/A	
Road Dust	PM/PM10/2.5	N/A	N/A	N/A	Paving & Water Spray
Emergency engines	CO	2.6	g/bhp-hr		Design and Good operating practices NSPS Certification
	NMHC+NOx	3.0	g/bhp-hr		
	PM	0.15 (filterable only)	g/bhp-hr		
Storage tanks	VOC	Good Operation Practices	N/A	N/A	Good operating practices

\* BACT emission limits shall apply at all times except the following: Emissions resulting from start-up, shutdown or malfunction above those given in the table above are permitted provided that optimal operational practices are adhered to and periods of excess emissions are minimized.

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

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

- c. Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall demonstrate compliance with the BACT emission limits by conducting performance test on the dryer system, the pellet coolers, and the greenwood hammermills as specified below utilizing EPA reference methods, as in effect on the date of permit issuance, contained in 40 CFR 60, Appendix A, 40 CFR 63, and/or OTM 26 AND in accordance with a testing protocol (using testing protocol submittal form) approved by the Division of Air Quality, as follows:

Unit	Pollutant	Testing
Dryer system	NOx	Annually
	PM/PM10/PM2.5	Annually
	VOC	Initial Only
	CO	Initial Only
One Pellet cooler	VOC	Initial Only
One Green wood hammermill	VOC	Initial Only

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.

If the results of two consecutive NOx and/or PM/PM10/PM2.5 compliance tests are less than 80% of the above BACT limit, future testing shall be required once per five years (within 60 months of the previous test date). If the results of either test for either pollutant exceed 80% of the standard, then annual testing shall resume for the respective pollutant until two consecutive tests per pollutant are less than 80% of the above listed BACT limit.

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

- d. The Permittee shall not process more than 537,625 oven-dried tons (ODT) of pellets per year. The Permittee shall not process more than 75% softwood on a 12-month rolling average basis. The process rate and hardwood/softwood mix shall be recorded in a monthly log kept on site. Calculations and the total amount of NOx, filterable PM, CO, and VOC emissions shall be recorded monthly in a log (written or electronic format) kept on site and made available to DAQ personnel upon request.

- e. For the dryer system, GHG (CO<sub>2</sub>e) 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.
- f. No reporting is required.
- g. REPORTING REQUIREMENT – Within 30 days of beginning commercial operation, the Permittee shall notify, in writing, the Regional Office of the date the facility began commercial operation. Pursuant to 15A NCAC 2Q .0500, the Permittee shall have one year from the date of beginning commercial operation to submit a complete Title V application to the Regional Supervisor.

### 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 the:

Steven Vozzo  
Regional Air Quality Supervisor  
North Carolina Division of Air Quality  
Fayetteville Regional Office  
System 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.

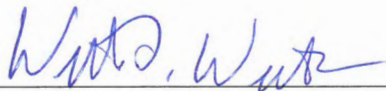
6. In accordance with 15A NCAC 2Q .0309, this permit is subject to revocation or modification by the DAQ upon a determination that information contained in the application or presented in the support thereof is incorrect, conditions under which this permit was granted have changed, or violations of conditions 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), 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 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 7<sup>th</sup> day of April, 2017

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION



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

Air Permit No. 10365R01