ENVIVA PELLETS SAMPSON 2017 P/N 10386 SAMPSON COUNTY

# Comprehensive Application Report for 8200152.17B

Enviva Pellets Sampson, LLC - Faison (8200152)

Sampson County

Permit/Latest Revision: 10386/ R03

General Information:

Permit code:

**IV-1st Time** Modification

## RECO AIR RECORDS MEM

10/03/2017

Application Dates

Clock Start Completeness Due

Calculated Issue Due

09/29/2017

11/28/2017

09/29/2017 Received

Fee Information

Initial amount: Date received: Amount Due: Add. Amt Rcv'd: Date Rcv'd:

Location deposited:

09/29/2017

Deposit Slip #:

Fund type:

Fayetteville Regional Office

Title V

Current Class/Status:

Clock is ON Status is:

Kevin Godwin/RCO

Engineer/Rev. location:

Application type:

Gregory Reeves

Regional Contact:

Facility location:

Application is COMPLETE

In progress

Contact Information

Location rec'd:

2333

Address

5 Connector Road, US 117 142 NC Route 561 East

Joe Harrell, Corporate EHS Manager

Technical/Permit

Authorized

Jason Ansley, Plant Manager

Name

Ahoskie, NC 27910 Faison, NC 28341

(325) 829-0112 (252) 209-6032

Telephone

City State ZIP

Acceptance Criteria

Acceptance Criteria Description Received?

Application fee

Yes N/A Yes N/A

Appropriate number of apps submitted Zoning Addressed

Authorized signature PE Seal Application contains toxic modification(s)

Completeness Criteria

Complete Item Description Received?

## Comprehensive Application Report for 8200152.17B Enviva Pellets Sampson, LLC - Faison (8200152)

Sampson County

001-17 13

Application Events

TV - Acknowledgment/Complete

09/29/2017 10/09/2017 10/03/2017 Complete Due Start

Comments

kmhash Staff

Regulations Pertaining to this Permit

Particulates Miscellaneous Industrial Processes Regulation Description .0515 Reference Rule 2D

.0516

.0521

2D 2D

Sulfur Dioxide Emissions Combustion Sources Control of Visible Emissions

Audit Information Pertaining to this Application

Old Value Column Name Date Changed

New Value

Editor

d



MICHAEL S. REGAN

MICHAEL A. ABRACZINSKAS

Director

October 3, 2017

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

SUBJECT: Receipt of Permit Application

Modification of Permit No. 10386R03

Application No. 8200152.17B Enviva Pellets Sampson, LLC

Facility ID: 8200152, Faison, Sampson County

Dear Mr. Ansley:

Your air permit application (8200152.17B) for Enviva Pellets Sampson, LLC, located in Sampson County, North Carolina was received by this division on September 29, 2017.

This application submittal <u>did</u> contain all the required elements as indicated and has been accepted for processing. Your application will be considered complete as of September 29, 2017, unless informed otherwise by this office within 60 days.

Should you have any questions concerning this matter, please contact Kevin Godwin at 919-707-8480.

Sincerely,

William D. Willets, P.E., Chief, Permitting Section

Division of Air Quality, NCDEQ

cc: Fayetteville Regional Office Files



### MAR 10 17

ROY COOPER

MICHAEL S. REGAN
Secretary

MICHAEL A. ABRACZINSKAS

Acting Director

March 3, 2017

Mr. Joe Harrell Corporate EHS Manager Enviva Pellets Sampson, 142 NC Route 561 East Ahoskie, North Carolina 27910

Subject:

Enviva Pellets Sampson, LLC

Faison, Sampson County, North Carolina Facility ID 8200152, Permit No. 10386R02

Emissions Test Protocols for the Green Wood Hammermills, Dryer and Pellet Coolers

Submitted by Air Control Techniques P.C. (ACT) Proposed Test Date: March 14 through 16, 2017

Tracking No. 2017-058t

Dear Mr. Harrell:

The North Carolina Division of Air Quality (DAQ) has reviewed the protocol submittal form (PSF) for emissions testing at Enviva Pellets Sampson facility. The PSF is for "testing the green hammermill with a fabric filter, the dryer with a cyclone and a wet electrostatic precipitator, and one of the six pellet coolers with a cyclone." The proposed testing is acceptable as discussed in this letter.

The permitted emissions sources are wood-fired direct heat drying system ES-DRYER controlled by four simple cyclones CD-DC1 through CD-DC4 and wet electrostatic precipitator CD-WESP; three green wood hammermills ES-GHM-1 through ES-GHM-3 controlled by three bagfilters CD-GHM-BF-1 through CD-GHM-BF-3; and six pellet coolers ES-CLR1 through ES-CLR6 controlled by six simple cyclones CD-CLR-1 through CD-CLR-6 installed one each on the coolers.

The following emissions standards apply: 15A NCAC 2D .0515 Particulates From Miscellaneous Industrial Processes; 15A NCAC 2D .0530 Prevention of Significant Deterioration (PSD) and 15A NCAC 2D .1112 National Emissions Standards for Hazardous Air Pollutants (NESHAP) Case By Case Maximum Achievable Control Technology (MACT). 2D .0515 limits total particulate matter (PM) based on actual process rate. Permit Condition 2.2.A.2 establishes the Best Available Control Technology (BACT) emissions limits for nitrogen oxides (NOx), PM, PM less than 10 microns (PM10), PM less than 2.5 microns (PM2.5), carbon monoxide (CO) and volatile organic compounds (VOC).

The permit requires emissions testing for compliance with 2D .1112 as specified in Permit Condition 2.1.A.4.a. which states "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... The sum of the above HAPs will be multiplied by a correction factor of 1.04 to determine total HAPs for the dryer system."

Joe Harrell March 3, 2017 Tracking No. 2017-058st Page 2

### RECO. AIR RECORDS MONT

Permit Condition 2.2.A.2.c states "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 follows: NOx (annual), PM/PM10/PM2.5 (annual), VOC and CO from the dryer system, and VOC from one pellet cooler and one green wood hammermill. Initial compliance demonstration testing is required for all pollutants and annual testing required as noted.

ACT has proposed the testing at the dryer, hammermill and pellet cooler as tabulated below.

Emission Source/	Target Pollutant	Proposed Method	Comments
Test Location	Target Torrutant	1 Toposed Wellod	
	Total PM	EPA Method 5/202	PM10/PM2.5
	NOx	EPA Method 7E	24
	CO	EPA Method 10	
Dryer/	VOC	EPA Method 25A	
CD-WESP Stack	Formaldehyde, Methanol,	EPA Method 320 FTIR	
	Acetaldehyde, Propionaldehyde	EPA Method 320 FTIK	
	Volumetric Flow Rate,	EPA Methods 1, 2, 3A, 4	
	Molecular Weight, Moisture	EPA Methods 1, 2, 3A, 4	
Pellet cooler/	VOC	EPA Method 25A	
CD-CLR stack	Volumetric Flow Rate,	EDA Mathada 1 2 2A 4	
	Molecular Weight, Moisture	EPA Methods 1, 2, 3A, 4	
Green wood	VOC	EPA Method 25A	
Hammermill/	Volumetric Flow Rate,	EDA Mathada 1 2 24 4	
ES-GHM Stack	Molecular Weight, Moisture	EPA Methods 1, 2, 3A, 4	

The PSF states "The production rate in units ODT/hr will be recorded during each test run. The wet electrostatic precipitator secondary voltages and currents will be recorded. The static pressure drops across the green wood hammermill fabric filter and across the pellet cooler cyclone will be recorded during each test run." The protocol indicates the maximum normal process rate is 71.71 oven dried tons per hour (ODT/hr) and the proposed rate for testing is 64.54 ODT/hr. The proposed operating rates for testing are acceptable. The final test report shall include information documenting the operation of the tested emission sources and associated equipment.

Approval of the proposed methods does not exempt the tester from the minimum requirements of the testing methodologies nor does it exempt Enviva from any regulatory requirement. Any deviations from the proposed testing remain subject to approval by DAQ. If you have any questions, please contact me at (919) 707-8416 or <a href="mailto:shannon.vogel@ncdenr.gov">shannon.vogel@ncdenr.gov</a>.

Sincerely, Marine M. Von

Shannon M. Vogel, Environmental Engineer

Division of Air Quality, NCDEQ

cc: Central Files, Sampson County

John Richards, Air Control Techniques, Inc.

Steven Vozzo, Fayetteville Regional Office

IBEAM Documents – 8200152

### App. Det.# 3047 CENTRAL OFFICE PERMIT TRACKING SLIP Facility/Application ID: 8200152 Facility Name: Enviva Pellets Sampson, LLC Engineer: Kevin Godwin County/Regional Office: Sampson/FRO Send Regional Office Copy of Application: o Yes ONo PART I - ACCEPTANCE CHECKLIST **Acknowledgement Letter:** Already Sent Please Send Initial Event(s): □ TV-Ack./Complete State Ack. Letter due ☐ TV-Ack./Incomplete add info ☐ State App. not accepted – add info request Fee Information: Acceptance Check List: No N/A Amount Due: PSD or NSR/NAA \$14,475 Appropriate Number of Apps Submitted PSD and NSR/NAA \$28.153 # Received\_\_\_\_\_, #Needed\_\_ TV Greenfield \$ 9.561 Application Fee Submitted □ TV \$ 929 Zoning Addressed Ownership Change \$60, \$50, \$25 **Authorized Signature** Renewal/Name Change – NA П PE Seal Initial Amount Received: Request for Confidentiality Additional Amount Due: Application Contains Toxics Modification(s) PART II - IBEAM UPDATES PART III - COMPLETENESS CHECKLIST **Application Type:** Permit Application Schedule: Required Application Forms Submitted and Completed Additional Permit Appeal Director Administrative Amendment Supporting Materials & Calculations Received Administrative Amendment Expedited State PE Seal (If 15A NCAC 2Q .0112) State Appeal □ PSD Modeling Protocol Acceptance Greenfield Facility Confirmation of Pollutants Modeled E5 Form (Significant Modification) ☐ Last GACT/Toxics Last MACT/Toxics TY - State Only $\Box$ TV - 502(b)(10) V - Expedited Modification ■TV – Minor Name Change TV - Greenfield TV - Renewal New Permit TV – Reopen for Cause ☐TV - Significant (2Q .0501(c)(2)) Ownership Change TV - Administrative ☐TV - Significant □TV - 1<sup>st</sup> Time TV - Ownership Change Renewal Renewal w/Modification **PART IV - GENERAL COMMENTS** Please respond. PART V - SUPERVISOR REVIEW CHECKLIST TVEE Updated (by Engineer): TVEE Verified: Supervisor: Chief:

PART VI - CLOSEOUT INFORMATION					
□ NESHAPS/MACT □ NESHAPS/GACT □ NSPS □ 2D .1100	Applicable to This Application (indicable PSD/NSR  PSD/NSR Avoidance Existing Source RACT/LAER New Source RACT/LAER RACT Avoidance		Permit Class Information  Before After Small Title V Syn. Minor Title V Proh. Small General		
HAP Major Status (after) Major Minor Not Determined  PSD or NSR Status (after) Major Minor					
Miscellaneous					
Public Notice Published Public Notice Affidavit (if not noticed via DAQ Website)  Document Manager Updated by Engineer: Date:					



April 19, 2017

Joshua Harris, Environmental Engineer NCEQ Fayetteville Regional Office 225 Green St., Suite 714 Fayetteville, NC 28301

RE: Permit Determination of bin vent install on top of 603 conveyor. Current Permit No. 10386R02

### Dear Josh:

Enviva Pellets Sampson, LLC (Sampson), requests a permit determination on the proposal to install a bin vent on top of hammermill collection conveyor, No. CCO 603, which is part of the dried wood handling and sizing operations, IES-DWHS. The bin vent will remove excess air from 603 then pneumatically convey into the top vent of ES-HM-6, which the air stream is controlled by cyclone and baghouse. Installation of bin vent on top of 603 as shown on Appendix A. The emission source, ES-HM-6, will not change as a result of this bin vent discharge.

Currently, the bin vent filter emissions are based on a design flow rate through a filter of 1,500 cubic feet per minute. As shown in the appendix, a dry material transfer fan will use the hammermill vent air along with ambient air to make up the air that is required to move wood fiber through the hammermill.

The Dried Wood Handling System (IES-DWHS) is included on the insignificant source list attached to Enviva's permit. The system contains a hammermill, enclosed conveyor system, cyclone and baghouse. Note that no changes to the regulations will result from adding the new vent to the hammermill air vents.

- 15A NCAC 2D .0515, Particulates from Miscellaneous Industrial Processes and
- 15A NCAC 2D .0521, Control of Visible Emissions.

CCO 603 bin vent will comply with the applicable particulate matter and visible emissions standards. No increase in emissions are expected.

Please feel free to contact Mr. Joe Harrell of Enviva at (252) 370-3181 if you have any questions.

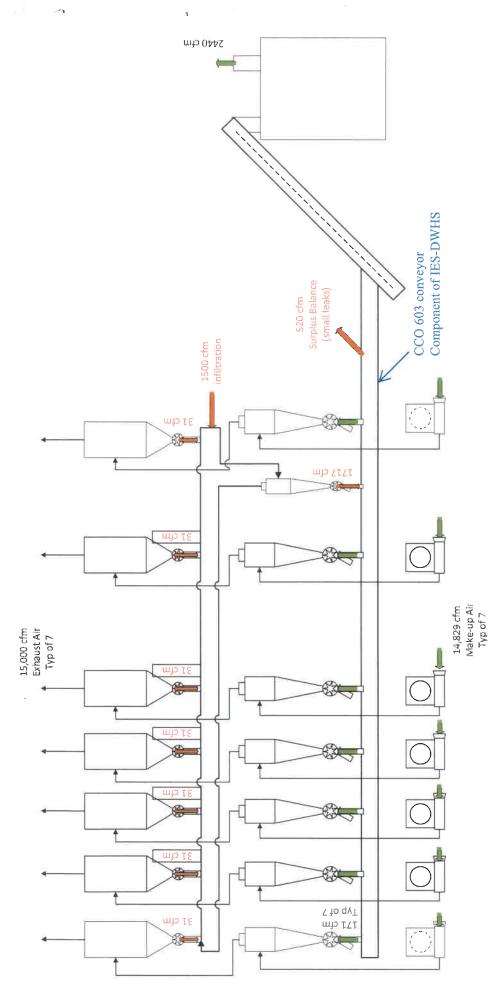
Certification by Responsible Official

"Based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this document are true, accurate and complete."

Sincerel

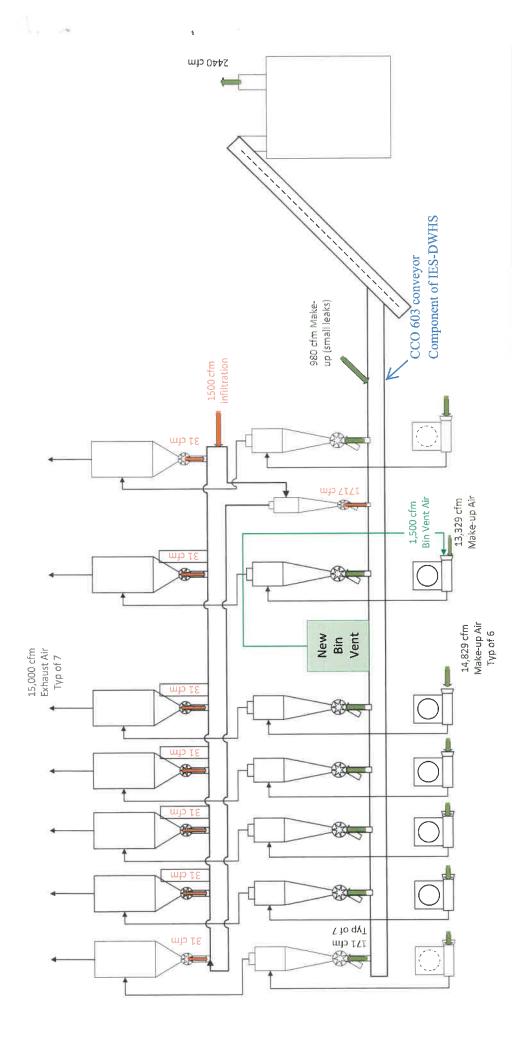
Norb Hintz

Senior Vice President, Chief Engineer



Silo	
Sampson Current	State

	217 Calculated	0 Damper is 100% closed	1500 Estimated based on dust leak velocities	-1197 Calculated		1 0 Due to configuration of conveyor, no air transfers to silo	
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ĭ	7.	1	1	7	alance	-	ince (+ gative)
cfm #	31	0	1500	-171	Conveyor Balance	0	Conveyor balance (+ Positive / - Negative)
	Baghouses	Fresh Air	Leaks	Cyclone		Silo Infeed Conveyor	Total Collection Conveyor balance (+ Positive / - Negative)



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	Leaks	1500	П	
	Cyclone	-171	7.	
	New Bin Vent	-1500	П	- 1
		Conveyor Balance	alance	
Sampson Future	Silo Infeed Conveyor	0	₽	
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שוכור	Ž	Positive / - Negative)	ative)	

O Due to configuration of conveyor, no air transfers to silo

-980

1500 Estimated based on dust leak velocities

-1197 Calculated -1500 Design -980

0 Damper is 100% closed

217 Calculated

Total

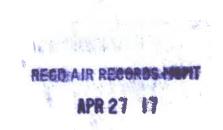
# 31

сtт

Baghouses

רמינו





ROY COOPER
Governor

MICHAEL S. REGAN

MICHAEL A. ABRACZINSKAS

April 24, 2017

Mr. Norb Hintz Senior Vice President, Designated Responsible Official Enviva Pellets, Sampson, LLC 5 Connector Road, US 117 Faison, North Carolina 28341

Dear Mr. Hintz:

SUBJECT: Permit Applicability Determination Request #3047

Air Quality Permit No. 10386R03, Facility ID: 8200152

Enviva Pellets, Sampson, LLC

Faison, Sampson County, North Carolina

Fee Class: Title V PSD Class: Major

This letter is in response to your written request for a permit applicability determination received by this office on April 19, 2017. According to your letter, the facility is planning to install a bin vent on top of hammermill collection conveyor, No. CCO 603, which is part of the existing dried wood handling and sizing operations (ID No. IES-DWHS). The bin vent will remove excess air from CCO 603 then pneumatically convey into the top vent of an existing hammermill (ID No. ES-HM-6). The hammermill is controlled by a cyclone (ID No. CD-HM-CYC6) in series with a bagfilter (ID No CD-HM-BF6). No changes to ES-HM-6 will occur as a result of the bin vent discharge.

As stated in your letter, bin vent filter emissions are based on a design flow rate of 1,500 cubic feet per minute (cfm). A dry material transfer fan will use the hammermill vent air along with ambient air to make up what is required to move the wood fiber.

The existing dried wood handling system (ID No. IES-DWHS) qualifies as an insignificant activity under 15A NCAC 02Q .0503(8). The system includes a hammermill and enclosed conveyor system. Applicable regulations are 15A NCAC 02D .0515 "Particulates from Miscellaneous Industrial Processes" and 15A NCAC 02D .0521 "Control of Visible Emissions." Continued compliance with these regulations is expected. No increase in emissions is expected.

Mr. Norb Hintz April 24, 2017 Page 2

The Division agrees with your assessment described above and that a permit modification is not necessary. The new bin vent system will be added to the insignificant activity list attached to the permit cover letter upon the next significant modification or renewal.

Should you have any questions regarding this determination, please contact Kevin Godwin at 919-707-8480.

Sincerely,

Kevin Godwin

Permit Review Engineer

Kevin T- Godwin

c: Fayetteville Regional Office files Central Files

### CENTRAL OFFICE PERMIT TRACKING SLIP

Facility Name: Enviva Pe	llets Sampson, LLC	Faci	lity/Application ID:	8200152.17A	
County/Regional Office: S	ampson/FRO	Eng	ineer: Kevin Godw	/in	
Send Regional Office Copy	of Application: OYes ONo				
SVA FI NUMBER	PART I - AC	CCEPTANCE CHECKLIST			1200
Acknowledgement Lette	r:	O Please Send			
Initial Event(s):	☑ TV-Ack./Complete	☐ State Ack. Letter due			
Facilities	☐ TV-Ack./Incomplete add info	☐ State App. not accepted		la T Saida	
			Acceptance Check	Yes No	N/A
Amount Due: PSD o	and NSR/NAA \$27,928	Appropriate Number of A # Received, #Ne			Ø
□TV	\$ 922	Application Fee Submitte	ed		
	rship Change \$60, \$50, \$25	Zoning Addressed - Authorized Signature			<b>Ø</b>
	val/Name Change – NA	PE Seal			Ø
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Additional Amount Due:	\$0.00	Application Contains To	xics Modification(s)		Ø
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Application Type:  Additional Permit  Administrative Amendment  Appeal  Greenfield Facility  Last GACT/Toxics  Modification  Name Change  New Permit  Ownership Change	□ Expedited State □ PSD □ TV - State Only □ TV - Expedited □ TV - Mino □ TV - Greenfield □ TV - Rene	dministrative Amendment b)(10) or ewal ificant (2Q .0501(c)(2)) I or II	☐ Required Applicatio ☐ Supporting Material: ☐ PE Seal (If 15A NC. ☐ Modeling Protocol A ☐ Confirmation of Poll ☐ E5 Form (Significan	s & Calculations Reco AC 2Q .0112) Acceptance Lutants Modele	
Renewal w/Modification		GENERAL COMMENTS  RVISOR REVIEW CHECK	LIST		
TVEE Updated (by Enginee	r): 4-6-17 TVEE Verified:	Supervis	or: 5) P4/1/2	Chief:(1)(	V 4/7/201
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Regula  □ NESHAPS/MACT  □ NESHAPS/GACT  □ NSPS  □ 2D .1100  □ 2Q .0711  □ 112(j)/112(d)	tions Applicable to This Application (in  PSD/NSR  PSD/NSR Avoidance Existing Source RACT/LAER New Source RACT/LAER RACT Avoidance RACT/LAER Added Fee* *(Notify Connie Horne)	ndicate <u>all</u> new regulations):  ☐ Toxics/Combustion So ☐ SIP Regulations (list a	ources After 7/10/10	Permit Class  Before  □ Small □ Syn. Minor  I fitle V □ Proh. Small □ General	Information After Title V
HAP Major Status (after) PSD or NSR Status (after)	☑ Major ☐ Minor ☐ Minor	□ Not Determined			
Miscellaneous		ti-Site Permit	cycled Oil Condition		
Permit Dates Issue:	4-7-17 Effective	4-7-1	Ex	xpiration: 10	31-19
IBEAM Closed Out By:	100	umber: 10386	Re	evision Number:	
☐ Public Notice Published  Document Manager Updated	☐ Public Notice Affidavit (if:	not noticed via DAQ Website Date: 4-7-17	e) =		



ROY COOPER

MICHAEL S. REGAN

MICHAEL A. ABRACZINSKAS
Actina Director

April 7, 2017

Mr. Maitland Horner Vice President Construction Enviva Pellets Sampson, LLC 7200 Wisconsin Avenue, Suite 1000 Bethesda, Maryland 20814

SUBJECT:

Air Quality Permit No. 10386R03

Facility ID: 8200152

Enviva Pellets Sampson, LLC

Faison, North Carolina Sampson County PSD Status: Major Fee Class: Title V

Dear Mr. Horner:

In accordance with the request for an administrative amendment to your permit received February 14, 2017, we are forwarding herewith Air Quality Permit No. 10386R03 to Enviva Pellets Sampson, LLC, 5 Connector Road, 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 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. Maitland Horner April 7, 2017 Page 2

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.

Sampson County has triggered increment tracking under PSD for PM-10, and PM-2.5. However, this permit administrative amendment does not consume or expand increments for any pollutants.

This Air Quality Permit shall be effective from April 7, 2017 until October 31, 2019, 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,

With With

William D. Willets, P.E., Chief, Permitting Section

Division of Air Quality, NCDENR

 c: Heather Ceron, EPA Region 4
 Steven Vozzo, Supervisor, Fayetteville Regional Office Shannon Vogel, Stationary Source Compliance Branch Central Files

### **ATTACHMENT**

Insignificant Activities per 15A NCAC 2Q .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 2	Green wood storage piles	
IES-DEBARK-1	De-barker	
IES-GWFB	Green wood fuel bin	
IES-EG	536 HP diesel-fired emergency generator - (NSPS, Subpart IIII & NESHAP, Subpart ZZZZ)	
IES-FWP	131 HP diesel-fired fire water pump - (NSPS, Subpart IIII & NESHAP, Subpart ZZZZ)	

- 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 2D .1100 "Control of Toxic Air Pollutants" or 2Q .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: <a href="http://daq.state.nc.us/permits/insig/">http://daq.state.nc.us/permits/insig/</a>



### 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
10386R03	10386R02	April 7, 2017	October 31, 2019

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 Sampson, LLC

Facility ID:

8200152

**Facility Site Location:** 

**5 Connector Road** 

City, County, State, Zip:

Faison, Sampson County, North Carolina, 28341

Mailing Address: City, State, Zip:

7200 Wisconsin Avenue Bethesda, Maryland 20814

Application Number:

8200152.17A

**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

### **Table Of Contents**

SECTION 1:

PERMITTED EMISSION SOURCE (S) AND ASSOCIATED

AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

**SECTION 2:** 

SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Source(s) Specific Limitations and Conditions
(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

2.2- Multiple Emission Source(s) Specific Limitations and Conditions
(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

SECTION 3:

GENERAL PERMIT CONDITIONS

### 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:

ippurtenances:	purtenances:						
Emission Source ID No.	Emission Source Description	Control Device ID No.	<b>Control Device Description</b>				
ES-CHIP-1 PSD	Log chipping	N/A	N/A				
ES-GHM-1, ES-GHM-2, ES-GHM-3 PSD	Three (3) green wood hammermills	CD-GHM-BF-1, CD-GHM-BF-2, and CD-GHM-BF-3	Three bagfilters (2,577 square feet of filter area each)				
ES- BARKHOG <b>PSD</b>	Bark hog	N/A	N/A				
ES-DRYER PSD 2D .1112 Case-by- case MACT	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 PSD 2D .1112 Case-by-case MACT	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 PSD 2D .1112 Case-by-case MACT	Hammermill area and Pellets fines bin	CD-PFB- BV	One bagfilter (1,520 square feet of filter area)				
ES-PMFS PSD	Pellet mill feed silo	CD-PMFS- BV	One bin vent filter (377 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 2D .1112 Case-by-case MACT	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-PCR PSD	Pellet cooler recirculation	CD-PCR- BV	One bin vent filter (942 square feet of filter area)
ES-PSTB PSD	Pellet sampling transfer bin	CD-DC- BV-3	One bin vent filter (377 square feet of filter area)
ES-FPH, ES-PB-1 through ES- PB-4, ES- PL-1 and ES-PL-2 <b>PSD</b>	Finished product handling, four (4) pellet load-out bins, and two pellet mill loadouts	CD-FPH- BF	One bagfilter (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. 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 No. ES-GHM-1, GHM-2 and GHM-3, ES-HM-1 through HM-8), Hammermill Area Filter (ID No. ES-HMA), Pellet Mill Feed Silo (ID No. ES-PMFS), Pellet Coolers (ID Nos. ES-CLR-1 through CLR-6), Pellet cooler recirculation (ID No. ES-PCR), Pellets Fines Bin (ID No. ES-PFB), Pellet Sampling Transfer Bin (ID No. ES-PSTB), Finished Product Handling (ID No. ES-FPH), Pellet Load-out Bins (ID Nos. ES-PB-1 through PB-4), and Pellet Mill Load-out (ID No. ES-PL-1 and PL-2)

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	$E = 4.10 \text{ x P}^{0.67}$ for $P < 30 \text{ tph}$ $E = 55 \text{ x P}^{0.11} - 40$ for $P \ge 30 \text{ tph}$	15A NCAC 02D .0515
	where, E = allowable emission rate (lb/hr) P = process weight rate (tph)	

Regulated Pollutant	Limits/Standards	Applicable Regulation
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 2D .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 2D .0515(a)]

$$E = 4.10 \text{ x P}^{0.67}$$
 for  $P < 30 \text{ tph}$   
 $E = 55 \text{ x P}^{0.11} - 40$  for  $P \ge 30 \text{ tph}$ 

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 2Q .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 2Q .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 through 3, ES-HM-1 through 8) shall be controlled by bin vent filters, bagfilters and cyclones (ID Nos. CD-GHM-BF-1 through 3, CD-RCHP-BV-1 and 2, 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 coolers (ID Nos. ES-CLR-1 through 6) shall be controlled by

cyclones (ID Nos. CD-CLR-1 through 6). Particulate matter emissions from pellet cooler recirculation (ID No. ES-PCR) shall be controlled by a bin vent filter (ID No. CD-PCR-BV). Particulate matter emissions from pellet sampling transfer bin (ID No. ES-PSTB) shall be controlled by a bin vent filter (ID No. CD-DC-BV3). Particulate matter emissions from finished product handling (ID No. ES-FPH), pellet mill load-out bins (ID Nos. ES-PB-1 through 4), and pellet mill load-out (ID No. ES-PL-1 and 2) shall be controlled by a bagfilter (ID No. CD-FPH-BF)

### 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 is 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 is 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) onsite 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 2D .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 2Q .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 2Q .0308(a)]

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from firing biomass in the

dryer system.

### 3. 15A NCAC 2D .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 2D .0521 (d)]

### Testing [15A NCAC 20 .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 2Q .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 2Q .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 2Q .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 2D .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 2Q .0308(a)] No monitoring, recordkeeping, or reporting is required.

### 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
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 2D .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 2D .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 2D .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 2D .0530, "Prevention of Significant Deterioration of Air Quality" as promulgated in 40 CFR 51.166. [15A NCAC 2D .0530]
- b. The following emission limits shall not be exceeded except during periods of start-up, shut-down, or malfunction. [15A NCAC 2D .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	0.105 (filterable only)	lb/ODT	3-hour	Cyclones/WESP
	PM10/2.5				
	CO	0.21	lb/MMBtu	3-hour	Process Design
	VOC**	1.07	lb/ODT	3-hour	Process Design
	GHG	230,000	tpy (CO <sub>2</sub> e)	Annual	Good Operating Practices

Unit	Pollutant	BACT Limit*	Units	Averaging Period	Technology
Green Wood	PM/PM10/2.5	0.004 (filterable only)	gr/dscf	3-hour	Bin vent filter
Hammermills					Good operating and
	VOC**	0.27	lb/ODT	3-hour	maintenance procedures
Dry Hammermills	PM/PM10/2.5	0.004/0.004/0.000014	gr/dscf	3-hour	Cyclones & Bagfilter
		(filterable only)			
	VOC**	0.24	lb/ODT	3-hour	Process Design
Pellet Mill Feed	PM/PM10/2.5	0.004 (filterable only)	gr/dscf	3-hour	Bin vent filter
Silo					
Hammermill Area	PM/PM10/2.5	0.004 (filterable only)	gr/dscf	3-hour	Bin vent filter
and Pellet					
Mill Fines					
Bin	D3 5/D3 54 0 /0 =	0.00.440.00.440.00.00.4			
Final Product	PM/PM10/2.5	0.004/0.004/0.000014	gr/dscf	3-hour	Bagfilter
Handling	73.573.540.00.0	(filterable only)			
Pellet Coolers	PM/PM10/2.5	0.022/0.0057/0.0007	gr/dscf	3-hour	Cyclones
		(filterable only)			
	VOC**	0.85	lb/ODT	3-hour	Process Design
Log Bark Hog	VOC	N/A	N/A	N/A	Fugitive
Chipper	VOC	N/A	N/A	N/A	Fugitive
Green Wood	PM/PM10/2.5	N/A	N/A	N/A	Inherent Moisture
Handling					
Storage Piles	PM/PM10/2.5	N/A	N/A	N/A	Inherent Moisture
	VOC	N/A	N/A	N/A	Fugitive
Road Dust	PM/PM10/2.5	N/A	N/A	N/A	Paving & Water Spray
Storage tanks	VOC	Good Operation Practices	N/A	N/A	Good operating practices

<sup>\*</sup> BACT emission limits shall apply at all times except the following: Emissions resulting from start-up, shutdown or malfunction above those given in Section 2.2 A.4. 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 2D .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
ne Green wood	VOC	Initial Only

Unit	Pollutant	Testing
hammermill		

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.

### 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. <u>REPORTING REQUIREMENT</u> 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), <u>TWO COPIES OF ALL DOCUMENTS, REPORTS, TEST DATA, MONITORING DATA, NOTIFICATIONS, REQUESTS FOR RENEWAL, AND ANY OTHER INFORMATION REQUIRED BY THIS PERMIT</u> shall be submitted to the:

Steven Vozzo 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. <u>RECORDS RETENTION REQUIREMENT</u> 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. <u>ANNUAL FEE PAYMENT</u> 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. <u>EQUIPMENT RELOCATION</u> 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. <u>REPORTING REQUIREMENT</u> 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. <u>PERMIT RETENTION REQUIREMENT</u> 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. <u>CLEAN AIR ACT SECTION 112(r) REQUIREMENTS</u> 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. <u>PREVENTION OF ACCIDENTAL RELEASES GENERAL DUTY</u> 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 7th 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. 10386R03

### NORTH CAROLINA DIVISION OF AIR QUALITY

### **Application Review**

Issue Date: April 7, 2017

Region: Fayetteville Regional Office

County: Sampson NC Facility ID: 8200152

Inspector's Name: Joshua L. Harris Date of Last Inspection: 01/26/2017

Compliance Code: W / Violation - procedures

### **Facility Data**

Applicant (Facility's Name): Enviva Pellets Sampson, LLC

Facility Address:

Enviva Pellets Sampson, LLC 5 Connector Road, US 117 Faison, NC 28341

SIC: 2499 / Wood Products, Nec

NAICS: 321999 / All Other Miscellaneous Wood Product Manufacturing

Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V

Permit Applicability (this application only)

SIP: 15A NCAC 02Q .0316

NSPS: N/A **NESHAP:** N/A PSD: N/A

PSD Avoidance: N/A NC Toxics: N/A 112(r): N/A

Other: N/A

**Contact Data Technical Contact Facility Contact Authorized Contact** Joe Harrell William Simon

EHS Manager (910) 375-5936 5 Connector Road, US

117

Faison, NC 28341

Rickey Searcy Plant Manager (910) 210-0822 5 Connector Road, US

Faison, NC 28341

Corporate EHS Manager (252) 209-6032 142 NC Route 561 East Ahoskie, NC 27910

**Application Number:** 8200152.17A

**Date Received:** 02/14/2017

Application Type: Admin. Amendment

**Application Data** 

**Application Schedule: State** 

**Existing Permit Data** Existing Permit Number: 10386/R02 Existing Permit Issue Date: 01/27/2016 Existing Permit Expiration Date: 10/31/2019

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	voc	со	PM10	Total HAP	Largest HAP
2015				_		_	.00E+00 [Arsenic & Compounds (total mas]
2014	_		_	17			.00E+00 [Arsenic & Compounds (total mas]

Review Engineer: Kevin Godwin

Review Engineer's Signature:

4-7-17

Comments / Recommendations:

Issue 10386/R03

Permit Issue Date: 04/07/2017 Permit Expiration Date: 10/31/2019

### I. Introduction and Purpose of Application

Kevis T- Godwa

A. Enviva Pellets operates a wood pellet manufacturing facility at this Sampson County location. This permit action is to administratively amend the existing permit under 15A NCAC 02Q .0316.



### Comprehensive Application Report for 8200152.17A Enviva Pellets Sampson, LLC - Faison (8200152)

Sampson County

Application Dates Completeness Due Received Permit/Latest Revision: 10386/ R03 General Information: Permit code:

Calculated Issue Due

Clock Start

05/15/2017

02/14/2017 Date received: Amount Due: Fee Information 0.00 03/31/2017 02/14/2017 02/14/2017 Initial amount: \$0.00 Fayetteville Regional Office Admin. Amendment Kevin Godwin/RCO Gregory Reeves Engineer/Rev. location: Regional Contact: Application type: Facility location:

Location deposited:

Location rec'd:

Deposit Slip #:

Fund type:

2333

Application is COMPLETE

Issued

Title V

Current Class/Status:

Clock is ON Status is:

Add. Amt Rcv'd: Date Rcv'd:

(252) 209-6032 (910) 210-0822 Telephone Ahoskie, NC 27910 Faison, NC 28341 City State ZIP 5 Connector Road, US 117 142 NC Route 561 East Address Joe Harrell, Corporate EHS Manager Rickey Searcy, Plant Manager Contact Information Name Technical/Permit Authorized

Acceptance Criteria Description Acceptance Criteria Received?

Appropriate number of apps submitted Application fee N/A N/A N/A

Authorized signature Zoning Addressed

> N/A N/A

PE Seal

Application contains toxic modification(s)

Completeness Criteria

Complete Item Description Received?

# Comprehensive Application Report for 8200152.17A Enviva Pellets Sampson, LLC - Faison (8200152)

Sampson County

Application Events

Comprehensive Application Report for 8200152.17A Enviva Pellets Sampson, LLC - Faison (8200152)

Sampson County

Outcome Information					
Class before: Title V	Class after: Title V		Permit/Revision:	10386/R03	
2Q.0711: No 2D.1100: No	No		Revision Issue Date: 04/07/2017	04/07/2017	
NSPS: No NESHAPS/MACT: No	No PSD/NSR:	No	Accumulated proce	Accumulated process days (includes public notice periods): 52	
PSD/NSR Avoid: No	Prohibitory Small:	No	Public notice/heari	Public notice/hearing/add info after 80 days:	
PSD/NSR Status After: Major	General permit:	No	Manager's discretion:	n: Appealed? No	
Multi-site permit: No	Multi. permits at facility:	No	Current Permit Information:	tion:	
Quarry permit: No	HAP Major (10/25 tpy):	Major	Issue Effective	Expiration Revision #	
2Q .0705 Last MACT/Toxics: NO	NESHAPS/GACT:	NO	2017	10/31/2019	
New Source RACT/LAER: NO	Existing Source RACT:	NO			
RACT/LAER Added Fee: NO	RACT Avoidance:	NO			
2Q.0702 (a)(18) - Toxics/Combustion Source(s) After 07/10/10:	Source(s) After 07/10/10:	NO			

	vesses
	Regulation Description Particulates Miscellaneous Industrial Processes Sulfur Dioxide Emissions Combustion Sources Control of Visible Emissions
g to this Permit	.0515 .0516 .0521
Regulations Pertaining to this Permit	Reference Rule 2D 2D 2D

	Editor
	New Value
ig to this Application	Old Value
Audit Information Pertaining to this Application	Column Name Date Changed

### Godwin, Kevin

From:

Harris, Joshua L

Sent:

Monday, February 27, 2017 3:08 PM

To:

Godwin, Kevin

Subject:

RE: Enviva-Sampson (8200152) Admin Amendment request

Kevin,

I came across one other question. In the 2D .0521 and 2D .0516 stipulations, it references General Condition JJ for testing. These should be changed to reflect the General Conditions that will be put into the permit as a result of this admin amendment.

Thanks, Josh

### **Joshua Harris**

Environmental Engineer

Fayetteville Regional Office
Division of Air Quality
North Carolina Department of Environmental Quality

910 433 3367 office joshua.harris@ncdenr.gov

225 Green Street, Suite 714 Fayetteville, NC 28301-5043



Nothing Compares ---

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Godwin, Kevin

**Sent:** Monday, February 27, 2017 2:24 PM **To:** Harris, Joshua L < joshua.harris@ncdenr.gov>

Subject: RE: Enviva-Sampson (8200152) Admin Amendment request

I would like to have the amended permits out this week.

### **Kevin Godwin**

Engineer
Division of Air Quality, Permitting Section
Department of Environmental Quality

919 707 8480 office kevin.godwin@ncdenr.gov

217 West Jones Street 1641 MSC Raleigh, North Carolina 27699



Nothing Compares ~~

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Harris, Joshua L

Sent: Monday, February 27, 2017 2:16 PM
To: Godwin, Kevin <a href="mailto:kevin.godwin@ncdenr.gov">kevin.godwin@ncdenr.gov</a>

Subject: Enviva-Sampson (8200152) Admin Amendment request

Good afternoon Kevin,

I saw in IBEAM that Enviva in Sampson has gone ahead and requested an admin amendment. Can you forward me a copy of the request? Do you have an eta for the permit?

Thanks, Josh

### **Joshua Harris**

**Environmental Engineer** 

Fayetteville Regional Office Division of Air Quality North Carolina Department of Environmental Quality

910 433 3367 office joshua.harris@ncdenr.gov

225 Green Street, Suite 714 Fayetteville, NC 28301-5043



Nothing Compares

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Air Quality Permit No. 10386R02 Page 5

Regulated Pollutant	Limits/Standards	Applicable Regulation
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 2D .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 2D .0515(a)]

$$E = 4.10 \text{ x P}^{0.67}$$
 for  $P < 30 \text{ tph}$   
 $E = 55 \text{ x P}^{0.11} - 40$  for  $P > 30 \text{ tph}$ 

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 2Q .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 2Q .0308(a)]

c. The Permittee shall maintain production records such that the prespecified by the formulas contained above (or the formulas contained above, and shall make these records available to a DAQ author.)

Tosh as an be

d. Particulate matter emissions from the wood-fired dryer (ID No. 1 (4) cyclones (ID Nos. CD-DC-1 through DC-4) in series with on CD-WESP). Particulate matter emissions from the hammermills

by four D No. , ES-

HM-1 through 8) shall be controlled by bin vent filters, bagfilters and cyclones (ID Nos. CD-GHM-BF-1 through 3, CD-RCHP-BV-1 and 2, 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 coolers (ID Nos. ES-CLR-1 through 6) shall be controlled by

# Comprehensive Application Report for 8200152.17A Enviva Pellets Sampson, LLC - Faison (8200152)

Sampson County

Clock Start Application Dates Completeness Due Received Permit/Latest Revision: 10386/ R02 General Information: Permit code:

Calculated Issue Due

05/15/2017

02/14/2017 Initial amount: Date received: Amount Due: Fee Information 03/31/2017 02/14/2017 Kevin Godwin/RCO Admin. Amendment Gregory Reeves Engineer/Rev. location: Regional Contact: Application type:

Location deposited: Add. Amt Rcv'd: Date Rcv'd: Location rec'd: 0.00 Deposit Slip #: 02/14/2017 Fund type: \$0.00 Fayetteville Regional Office Title V Current Class/Status: Facility location:

2333 Application is COMPLETE Clock is ON

In progress Status is:

(252) 209-6032 (910) 210-0822 Telephone Ahoskie, NC 27910 Faison, NC 28341 City State ZIP 5 Connector Road, US 117 142 NC Route 561 East Address Joe Harrell, Corporate EHS Manager Rickey Searcy, Plant Manager Contact Information Name Technical/Permit Authorized

Acceptance Criteria

Received? Acceptance Criteria Description

N/A Application fee

N/A Appropriate number of apps submitted

Zoning Addressed Authorized signature

PE Seal

Application contains toxic modification(s)

Completeness Criteria

Received? Complete Item Description

# Comprehensive Application Report for 8200152.17A Enviva Pellets Sampson, LLC - Faison (8200152)

Sampson County

Staff cjhorne Comments 02/14/2017 02/24/2017 02/14/2017 Complete Due Start TV - Acknowledgment/Complete Application Events Event

	Regulation Description Particulates Miscellaneous Industrial Processes Sulfur Dioxide Emissions Combustion Sources Control of Visible Emissions
to this Permit	.0515 .0516 .0521
Regulations Pertaining to this Permit	Reference Rule 2D 2D 2D

	Editor
	New Value
Audit Information Pertaining to this Application	Old Value
	Column Name Date Changed

### Godwin, Kevin

From: Joe Harrell <joe.harrell@envivabiomass.com>

Sent: Tuesday, February 14, 2017 12:58 PM

To: Godwin, Kevin
Cc: Roland Burnett; Jason Ansley; Mike Carter; Michael Doniger; Christopher Seifert; Norb

Hintz; Rickey Searcy; Mark Haser

Subject: Request: General Conditions Update

Mr. Godwin,

Please update Section 3 General Conditions for Enviva Pellets Sampson (Permit #10386R02), Enviva Pellets Hamlet (Permit #10365R00), and Enviva Pellets Northampton (Permit #10203R04) with the updated general conditions per Enviva Pellets Ahoskie (Permit #10120R03) issued on May 22, 2015.

Thank you, Joe

Cc:

Roland Burnett, Northampton Plant Manager Norb Hintz, Hamlet SVP Chief Engineer Rickey Searcy, Sampson Plant Manager Jason Ansley, Ahoskie Plant Manager



### Joe Harrell

Corporate EHS Manager

Enviva Pellets Ahoskie, LLC 142 NC Route 561 East Ahoskie, NC 27910 USA www.envivabiomass.com +1 (252) 209 6032 x(2202) cell (252) 370 3181 fax (252) 364 3428 joe.harrell @envivabiomass.com

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