NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Region: Winston-Salem Regional Office

County: Wilkes

NC Facility ID: 9700001

Inspector's Name: Robert Barker **Date of Last Inspection:** 06/15/2016

Compliance Code: 3 / Compliance - inspection

Issue Date:

Facility Data

Applicant (Facility's Name): Louisiana-Pacific Corporation - Roaring River

Facility Address:

Louisiana-Pacific Corporation - Roaring River

1151 ABTCO Road

North Wilkesboro, NC 28659

SIC: 2493 / Reconstituted Wood Products

NAICS: 321219 / Reconstituted 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: 02D .0501, 02D .0503, 02D .0504, 02D .0512, 02D .0516, 02D .0521, 02D .0524, 02D .0614, 02D

.1109, 02D .1111, 02D .1806, 02Q .0711

NSPS: Subpart Dc, Subpart IIII

NESHAP: Subpart DDDD, Subpart QQQQ,

Subpart ZZZZ, Subpart DDDDD

PSD:

PSD Avoidance: 02Q .0317, 02Q .0530(u)

NC Toxics: 112(r): Other:

Contact Data

2 323331 2 3333							
Facility Contact	Authorized Contact	Technical Contact					
Sharon Wetzel EHS Manager (336) 696-3464 PO Box 98 Roaring River, NC 28669	Scott Cranston Plant Manager (336) 696-3483 PO Box 98 Roaring River, NC 28669	Sharon Wetzel EHS Manager (336) 696-3464 PO Box 98 Roaring River, NC 28669					
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Application Data

Application Number: 9700001.17A **Date Received:** 01/25/2017 **Application Type:** Renewal

Application Schedule: TV-Renewal

Existing Permit Data
Existing Permit Number: 03909/T52
Existing Permit Issue Date: 06/28/2016
Existing Permit Expiration Date: 10/31/2017

Total Actual emissions in TONS/YEAR:

	10 WHITE WAR THE STATE AND THE							
CY	SO2	NOX	voc	со	PM10	Total HAP	Largest HAP	
2015	4.25	171.17	272.81	637.87	51.41	149.56	71.57 [Methanol (methyl alcohol)]	
2014	4.36	185.51	297.91	673.78	54.85	163.28	77.81 [Methanol (methyl alcohol)]	
2013	4.61	182.66	294.28	472.35	50.33	160.48	77.61 [Methanol (methyl alcohol)]	
2012	6.43	159.63	262.59	397.44	44.85	140.93	65.92 [Methanol (methyl alcohol)]	
2011	4.99	163.94	256.67	400.18	40.91	141.94	65.60 [Methanol (methyl alcohol)]	

Review Engineer: Urva Patel Comments / Recommendations:

Review Engineer's Signature:

Date:

Issue 03909/T53

Permit Issue Date:

Permit Issue Date:

Permit Expiration Date:

1. Purpose of Application:

Currently, Louisiana Pacific Corporation (LP) holds Title V Permit No. 03909T52 with an expiration date of October 31, 2017. The Title V renewal application (**Application No. 9700001.17A**) was received on January 25, 2017, which was at least nine months prior to the expiration date of the Title V permit. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

2. Facility Description:

Louisiana Pacific Corporation(LP) – Roaring River Mill is a wood panels producing facility located in Northwest of Wilkesboro, Wilkes County, North Carolina. LP owns and operates a hardboard siding production facility in Roaring River. The hardboard is manufactured by thermos-mechanically digesting wood chips, adding resin to form a pulp, pouring the pulp into molds, heating the molds under high pressure, baking the boards, and finally finishing the product. Five boilers, consisting of three primary boilers and two temporary/backup boilers, provide heat and steam for the manufacturing process. LP is also permitted for the operation of emergency generators, a wastewater treatment plant, and numerous insignificant activities.

3. History / Background / Application Chronology:

November 13, 2012	Title V Air Permit No. 03909T49 issued. This permit includes renewal of Title V Air Permit. It also
11010111001 13, 2012	includes significant modification – revised notification compliance status with the associated
	MACT parameters in accordance with permit and MACT requirements.
May 21, 2013	Title V Air Permit No. 03909T50 issued. The permit indicates "Reopen for Cause" – the errors were
	omissions in the CAM.
June 11, 2014	Title V Air Permit No. 03909T51 issued. The modification indicates removal of NC toxic air
	pollutant limits for sources subject to 40 CFR Part 63 National Emissions Standards for Hazardous
	Air Pollutants for Source Categories (MACT) contained in Title V permit 03909T50 condition 2.2
	A and to update the insignificant activity list.
June 28, 2016	Title V Air Permit No. 03909T52 issued. This modification indicates the facility is shuttered but
	would like to maintain an active Air Permit. The boilers would be used to provide steam heat to
	manufacturing operations.

Application Chronology

Application Chronolog	$\frac{\Delta y}{2}$
January 25, 2017	Received application for permit renewal.
January 25, 2017	Sent acknowledgement letter indicating that the application for permit renewal was complete.
September 7, 2017	Facility (Ms. Sharon Wetzel) responded to remove emergency generators (ID Nos. ES-DGEN1,
•	ES-DGEN2, and ES-DGEN3) as these engines were rented to use for power and to run emergency
	air compressors occasionally.
November 10, 2017	The facility (Ms. Sharon Wetzel) informed the Department on the applicability determination of
	Gasoline Tank (IES-LP IT-4). For more detailed information, see Section 7.
March 20, 2018	Based on comment from the facility (Mr. Phil Ferguson), DAQ has removed century scrubber (ID
	No. CD 4) from the entire permit as it does not exist any longer.
March 20, 2018	Facility (Mr. Phil Ferguson) comments on draft permit: "no longer uses natural gas" on Boiler 3 (ID
	No. ES-B3) and "no longer have fuel oil"
April 4, 2018	Facility (Mr. Phil Ferguson) confirmed the changes. See Section 10 for detailed information.

4. Summary of Changes to the Existing Permit (Permit No. 03909T52):

Page No.	Section	Description of Changes
Cover Letter	N/A	Update cover letter for application number, dates, permit numbers, fee class, PSD increment statement and chief name

Page No.	Section	Description of Changes
Permit Cover	N/A	Insert new issuance, permit number, complete application date and application number
Insignificant Activity list	N/A	Added equipment (ID Nos. IES-G5 to IES-G15, IES-LP IT-90, IES-LP IT-91, IES-LP IT-92) in Insignificant Activity list
3, 14	2.1 A Table	 Revised Equipment Description for ID No. ES-4 Added MACT 5D with ID Nos. ES-B1, ES-B3, ES-B4T, and ES-B5T Revised page numbers for all the emission IDs.
5, 18,19 24 42	2.1 A Table 2.1 E Table 2.1 E.9.k, m, o 2.3 C	ID No. CD-4 has been removed due to ID No. CD-4a in-operation.
8	2.1 A.2 a and b	Revised permit condition based on current permit language.
9, 10	2.1 B.1.a and b	Revised permit condition based on current permit language.
15	2.1 C.2	Revised permit condition based on current permit language.
15	2.1 C.2.c	Changes VE observation frequency from "Once a week" to "Once a day"
18	2.1 E	Added new row(s) in table for adding HAPs - MACT 5D, 02D .1111 etc.
21	2.1 E.5.d 2.1 E.6.c	 Revised permit condition based on current permit language. Removal of "The energy input to the boiler from solid fuel shall be calculated by subtracting the energy input from fuel oil from the total energy input" from the permit condition as facility no longer use fuel oil
25	21511	• Removal of requirement of written notification for initial start-up of the source ID No. ES-B3 with multicylone and ESP (ID No. CD-4a) as its completed.
28	2.1 E.11 2.1 F	 Condition added for 112(j) transitions to Boiler MACT Added new row(s) in table for adding HAPs - MACT 5D, 02D .1111 etc.
30	2.1 F.6	Condition added for 112(j) transitions to Boiler MACT
6, 27,28	2.1 H	 All emergency generators (ID Nos. ES-DGEN1, ES-DGEN2, and ES-DGEN3) are removed from the permit as they are mobile sources. And Mobile/Nonroad engines do not require an air permit. Updated references from Section I to Section H, Section J to Section I
33	2.1 H.2.a	Revised permit condition based on current permit language.
33	2.1 H.3	Updated condition with the emergency operation limitations for ID Nos. ES-FP1 and ES-FP2
36	2.2	 Removal of 02D .0958 since it's not applicable statewide. Updated all references for consistency.
40	2.3 A	Removal of 02D .0521 regulation as it is not applicable regulation for CAM purposes.
5, 18, 42	2.1 A Table 2.1 E, 2.3 C	Removal of Natural gas from Boiler 3 (ID No. ES-B3) as facility does not use natural gas as a fuel.

5. Compliance Status:

DAQ has reviewed the compliance status of this facility. During the most recent inspection conducted on August 17, 2017, Robert Barker of the of the Winston-Salem Regional Office indicated that the facility appeared to be in compliance with all applicable requirements. Additionally, a signed Title V Compliance Certification (Form E5) indicating that the facility was following all applicable requirements was submitted with Application No. 9700001.17A on January 25, 2017.

Five-year Compliance History:

- On January 19, 2014, the WSRO issued a Notice of Violation (NOV) for an exceedance of the BACT particulate limitation on boiler ES-B3 that was documented during the November 2013 stack testing while firing sander dust. The DAQ decided not to seek a civil penalty because the exceedance was a result of modifications made to the boiler and its associated venturi scrubber for compliance with the Case-by-Case Boiler MACT, referenced in Section 2.1.E.11 of the permit. LP immediately ceased burning sander dust in the boiler when it became aware of the exceedance. Noncompliance associated with firing sander dust in boiler ES-B3 will be resolved with the installation and operation of the ESP.
- On August 13, 2014, DAQ deferred enforcement for testing boiler # 3 while combusting sander dust in the scroll burner. The deferral was for excess emissions for particulate matter and associated visible emissions.
- On November 3, 2014, DAQ deferred enforcement for boiler # 3 test while combusting sander dust in the scroll burner as the facility had not burned sander dust since January 2014 tests except during periods of testing under a deferral of enforcement. The deferral was for excess emissions for particulate matter and associated visible emissions.
- On May 5, 2015, DAQ deferred enforcement for testing boiler # 3 while combusting sander dust in the scroll burner as the facility had not burned sander dust since January 2014 tests except during periods of testing under a deferral of enforcement. The facility has completed several boiler and control device upgrades over the past 3 years and the use of sander dust with elevated zinc content may cause particulate matter exceedances. The facility will not combust dust with elevated zinc levels and the dust will originate from the Trimboard line only. The deferral was for excess emissions for particulate matter and associated visible emissions.
- On May 20, 2015, DAQ modified the deferral of enforcement of May 5, 2015 as the facility requested to allow combustion of shake line dust with higher zinc content to evaluate the effect of zinc particles on the control efficiency of the scrubber. Therefore, the original deferral of enforcement (May 5, 2015) for boiler # 3 test while combusting shake line dust in the scroll burner.
- On June 30, 2015, DAQ deferred enforcement for testing boiler # 3 while combusting sander dust comprised of material from the panel line in the scroll burner. The deferral was for excess emissions for particulate matter and associated visible emissions.
- On July 28, 2016, DAQ deferred enforcement for testing boiler # 3 during start-up of the Electrostatic precipitator (ID No. CD-4a), prior to the initial performance test. The period will cover up to 48 hours of scroll burner operation as well as other Electrostatic precipitator (ID No. CD-4a) tuning operations. The deferral was for excess emissions for particulate matter and associated visible emissions.

6. Regulatory Review

Louisiana – Pacific Corporation – Roaring River Mill is subject to the following regulations. An extensive review for each applicable regulation is not included in this document, as the facility's status with respect to these regulations has not changed. The facility is expected to be in continued compliance.

2.1 Permitted Emission Sources and Associated Air Pollution Control Devices:

- A. Fuel Wood System (ID No. ES-FS1) with Bagfilter (ID No. CD-FS1)
 No. 2 reclaim rechipper (ID No. ES-RC2) with simple cyclone (ID No. CD-RC2-A)
 Pneumatic rock separator (ID No. ES-PRS) with simple cyclone
 - 1. Applicable Regulatory Requirements:
 - 15A NCAC 02D .0512: Particulates from Miscellaneous Wood Products Finishing Plants
 - 15A NCAC 02D .0521(c): Control of Visible Emissions (ID No. ES-RC2 and ES-FS1)
 - 15A NCAC 02D .0521(d): Control of Visible Emissions (*ID No. ES-PRS*)

B. Manufacturing Line No. 1 including:

¹Line 1 hardboard press with unloader (ID No. ES-L1P),

¹Line 1 steam heated bake oven (ID No. ES-L1BO), and

¹Line 1 board cooler (ID No. ES-L1BC).

Manufacturing Line No. 2 including:

¹Line 2 hardboard press with unloader (ID No. ES-L2P),

¹Line 2 steam heated bake oven (ID No. ES-L2BO), and

¹Line 2 board cooler (ID No. ES-L2BC).

Thermomechanical Line No. 1 including:

Digesters 1 and 2 (ID Nos. ES-L1D1 and ES-L1D2), and Line 1 refiners 1, 2, 3, and 4 (ID Nos. ES-L1R1, ES-L1R2, ES-L1R3, and ES-L1R4).

Thermomechanical Line No. 2 including:

Digesters 1 and 2 (ID Nos. ES-L02D1 and ES-L02D2), and Line 2 refiners 1, 2, 3, and 4 (ID Nos. ES-L2R1, ES-L2R2, ES-L2R3, and ES-L2R4).

The sources (ID Nos. ES-L1D1, ES-L1D2, ES-L02D1 and ES-L02D2) are controlled by a two stage countercurrent scrubber (ID No. CD-TMP1) with water as the scrubbing medium and a flow rate of approximately 2,000 gallons per minute in the first stage. The flow rate in the second stage is approximately 150 gallon per minute.

Zone 3 through 7 of the sources (ID Nos. ES-L1BO and ES-L2BO) are controlled by boiler No. 3 (ID No. ES-B3).

1. Applicable Regulatory Requirements:

- 15A NCAC 02D .0521(c): Control of Visible Emissions (Manufacturing Line No. 1 Emissions Sources)
- 15A NCAC 02D .0521(d): Control of Visible Emissions (Manufacturing Line No. 2 Emissions Sources)
- 15A NCAC 02D .1111: Maximum Achievable Control Technology (40 CFR 63, Subpart DDDD)
- 15A NCAC 02D. 1806: Control and Prohibition of Odorous Emissions (State-enforceable only)
- 15A NCAC 02Q. 0711: Emission Rates Requiring a Permit (State-enforceable only)

C. Woodworking equipment consisting of sawing and scoring equipment (ID No. ES-1A/1B) with two parallel bagfilters (ID No. BH1A/1B),

Woodworking equipment consisting of the Newman station, and scoring, sawing, and sanding equipment (ID No. ES-2A) with fabric filter (ID No. BH2A),

Woodworking equipment consisting of a shake machine, Weima grinder, and scoring equipment (ID No. ES-2B) with fabric filter (ID No. BH2B),

Woodworking equipment consisting of lap line sanding, the ripper machine, and the fixed knife waste chopper (ID No. ES-3) with fabric filter (ID No. BH3),

Woodworking equipment consisting of the panel line sanding unit, the Newman sanding station, the Newman machine, a shake line, and the glue line sanding unit (ID No. ES-4) with fabric filter (ID No. BH4), and

Pneumatic woodwaste transfer system (ID No. ES-5) with fabric filter (ID No. BH5)

1. Applicable Regulatory Requirements:

15A NCAC 02D .0512: Particulates from Miscellaneous Wood Products Finishing Plants

¹ Opacity requirements apply to manufacturing lines only because there are no visible emissions anticipated from the thermomechanical pulping lines.

- 15A NCAC 02D .0521: Control of Visible Emissions
- 15A NCAC 02D .0614: Compliance Assurance Monitoring

D. Finishing operations including:

Lap coating line (ID No. ES-LL), Panel coating line (ID No. ES-PL), Groove sealer spray booth (ID No. ES-SM), and Shake edge seal spray booth (ID No. ES-SE)

1. Applicable Regulatory Requirements:

- 15A NCAC 02D .0512: Particulates from Wood Products Finishing Plants
- 15A NCAC 02D .0521(d): Control of Visible Emissions
- 15A NCAC 02Q .0317 for avoidance of 15A NCAC 02D. 0530 (*ID No. ES-SM*)
- 15A NCAC 02D .1806: Control and Prohibition of Odorous Emissions (State-enforceable only)
- 15A NCAC 02Q .0711: Emission Rates Requiring a Permit (State-enforceable only)
- 15A NCAC 02D .1111: Maximum Achievable Control Technology (40 CFR 63, Subpart DDDD (*ID No. ES-SE*); 40 CFR 63, Subpart QQQQ (*except spray booth ID No. ES-SE*)

2. Changes per the Title V Permit Renewal:

• Removal of 15A NCAC 02D .0958 since it's not applicable statewide anymore.

E. Natural gas-fired boiler (ID No. ES-B1)

Biomass/natural gas-fired boiler (ID No. ES-B2) with mutlicyclone (ID No. CD-1) and fan impingement type scrubber (ID No. CD-2)

Biomass/natural gas-fired boiler (ID No. ES-B3) with multicyclone (ID No. CD-3) and venturi scrubber (ID No. CD-4)* OR electrostatic precipitator (ID No. CD-4a)

1. Applicable Regulatory Requirements:

- 15A NCAC 02D .0501(e): Compliance with Emission Control Standards
- 15A NCAC 02D .0503: Particulates from Fuel Burning Indirect Heat Exchangers
- 15A NCAC 02D .0504: Particulates from Wood Burning Indirect Heat Exchangers
- 15A NCAC 02D .0516: Sulfur Dioxide Emissions from Combustion Sources
- 15A NCAC 02D .0521: Control of Visible Emissions
- 15A NCAC 02D. 0614: Compliance Assurance Monitoring
- 15A NCAC 02D. 1109: 112(j) Case-by-Case Maximum Achievable Control Technology
- 15A NCAC 02Q. 0317 for avoidance of 15A NCAC 02D. 0530
- 15A NCAC 02Q. 0530(u) for avoidance of 15A NCAC 02D. 0530

2. Changes per the Title V Permit Renewal:

• Addition of 40 CFR 63, Subpart DDDDD placeholder language

F. Two natural gas-fired temporary boilers (ID Nos. ES-B4T and ES-B5T) equipped with low-NOx burners

1. Applicable Regulatory Requirements:

- 15A NCAC 02D .0503: Particulates from Fuel Burning Indirect Heat Exchangers
- 15A NCAC 02D .0516: Sulfur Dioxide Emissions from Combustion Sources
- 15A NCAC 02D .0521: Control of Visible Emissions
- 15A NCAC 02D. 0524: New Source Performance Standards (40 CFR 60, Subpart Dc)
- 15A NCAC 02D. 1109: 112(j) Case-by-Case Maximum Achievable Control Technology

2. Changes per the Title V Permit Renewal:

• Addition of 40 CFR 63, Subpart DDDDD placeholder language

G. Trimboard Line with Cold Press (ID No. ES-TB-1)

- 1. Applicable Regulatory Requirements:
 - 15A NCAC 02D. 1806: Control and Prohibition of Odorous Emissions (State-enforceable only)
 - 15A NCAC 02Q. 0711: Emission Rates Requiring a Permit (State-enforceable only)
 - 15A NCAC 02D .1111: Maximum Achievable Control Technology (40 CFR 63, Subpart QQQQ)

H. Two backup diesel-fired generators (each with rating up to 500 brake horsepower) (ID Nos. ES-DGEN1 and ES-DGEN2)

One temporary diesel-fired emergency generator (rating up to 2521 brake horsepower or 1880 Kilowatt, ID No. ES-DGEN3)

- 1. Applicable Regulatory Requirements:
 - 15A NCAC 02D .0516: Sulfur Dioxide Emissions from Combustion Sources
 - 15A NCAC 02D .0521: Control of Visible Emissions
 - 15A NCAC 02D. 0524: New Source Performance Standards (40 CFR 60, Subpart IIII)
 - 15A NCAC 02Q. 0317 for avoidance of 15A NCAC 02D. 0530
- 2. Changes per the Title V Permit Renewal:
 - Removal of this section. For detailed information, see Section 7.
- I. Two diesel emergency back-up fire pumps (ID Nos. ES-FP1 and ES-FP2) (160 HP and 215 HP, respectively)
 - 1. Applicable Regulatory Requirements:
 - 15A NCAC 02D .0516: Sulfur Dioxide Emissions from Combustion Sources
 - 15A NCAC 02D .0521: Control of Visible Emissions
 - 15A NCAC 02D .1111: Maximum Achievable Control Technology (40 CFR 63, Subpart ZZZZ)
- J. Waste water treatment plant. (ID No. ES-WWTP)
 - 1. Applicable Regulatory Requirements:
 - 15A NCAC 02O, 0711: Emission Rates Requiring a Permit (State-enforceable only)
 - 15A NCAC 02D .1111: Maximum Achievable Control Technology (40 CFR 63, Subpart DDDD)

2.2 Multiple Emission Sources Specific Limitations and Conditions:

- A. Facility wide Affected Emission Sources
 - 1. Applicable Regulatory Requirements:
 - 15A NCAC 02D .1100: Control of Toxic Air Pollutants (State-Enforceable only)
 - 15A NCAC 02D. 1806: Control and Prohibition of Odorous Emissions (State-Enforceable only)
 - 15A NCAC 02Q. 0711: Emission Rates Requiring a Permit (State-Enforceable only)
 - 2. Changes per the Title V Permit Renewal:
 - Removal of 15A NCAC 02D .0958 since it's not applicable statewide anymore.
- **B.** Finishing operations including:

Lap coating line (ID No. ES-LL), Panel coating line (ID No. ES-PL), Groove sealer spray booth (ID No. ES-SM), and Trimboard Line with Cold Press (ID No. ES-TB-1)

• 15A NCAC 02D .1111: Maximum Achievable Control Technology (40 CFR 63, Subpart QQQQ)

7. NSPS, NESHAP/MACT, NSR/PSD, 112(r), CAM

NSPS

This facility is subject to the following New Source Performance Standards (NSPS), 40 CFR 60.

NSPS Subpart Dc:

Natural gas-fired boilers (**ID Nos. ES-B4T and ES-B5T**) are subject to the "NSPS for Small Industrial, Commercial, Institutional Steam Generating Units," 40 CFR Part 60 Subpart Dc. This permit modification does not affect NSPS Subpart Dc requirements, and no changes to the permit are needed. The facility is expected to be in continued compliance.

NSPS Subpart IIII

The two-backup diesel-fired generators (**ID Nos. ES-DGEN1 and ES-DGEN2**) and the temporary diesel-fired emergency generator (**ID No. ES-DGEN**) are subject to 40 CFR "General Compliance Provisions for Highway, Stationary, and Nonroad Programs," 40 CFR 1068, Subpart A. As per 40 CFR \$1068.30 (2)(iii), these engines are nonroad/mobile engines. Therefore, they do not require an air permit.

As per the most recent inspection report (Inspection dated on August 17, 2017), Condition 2.1.H.3 indicates none of these generators on-site during the inspection. none of these generators were on-site during the inspection. It should be noted that due to the failure of the mill air compressors, the facility rented a diesel air compressor on three different occasions (July 7, 2016, October 6, 2016, and December 8, 2016) in order to keep the mill running. The air compressors were brought on-site and only operated for a couple of days. For each of these generators, the facility notified DAQ and submitted a letter. The letters contained all the data concerning the diesel air compressors. The operation of these diesel air compressors was for a total of 359.33 hours. Therefore, these all three generators are considered as temporary- emergency generators.

As per email from Ms. Sharon Wetzel on August 31, 2017, these all three units are rental emergency diesel generators and occasionally used for power and to run emergency air compressors. When the facility need to bring one in, they usually notify 7 days in advance. In an emergency, the facility calls within 48 hours and follow up with a written submission within 5 days. The facility tracks hours used in their monthly air records. These emergency generators are only on site for a temporary time and then returned to rental place. For 2016 the longest time on site for ES-DGEN3 was 218 hours in July 2016 and 136 hours for ES-DGEN1 in May 2016. Therefore, it is categorized as nonroad/mobile engines. And as per 40 CFR §1068.30 Nonroad engines: (2)(iii), the facility is exempted from the air permit for these sources.

NESHAP/MACT

This facility is a major source for HAPs emissions and is subject to the following major source MACTs:

• 15A NCAC 02D .1109, 112(j) Case-by-Case Maximum Achievable Control Technology – All boilers (**ID Nos. ES-B1, ES-B2 and ES-B3**) are subject to this regulation. The requirements for Case-by-Case MACT were added to the permit under Air Permit No. 03909T46 issued on November 1, 2010, with a compliance date of November 1, 2013. The requirements for burning No. 6 fuel oil were removed from the Case-by-Case MACT requirements under Air permit number 03909T52, issued on June 11, 2014. The facility is expected to be in continued compliance.

Additionally, a new condition will be added to the permit clarifying that the boilers are subject to the Caseby-Case MACT until May 19, 2019. The facility must be in compliance with EPA's NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63 Subpart DDDDD starting May 20, 2019. No other changes to the Case-by-Case MACT permit conditions are required.

• 15A NCAC 02D .1111, Maximum Achievable Control Technology –

MACT Subpart DDDD:

The thermochemical pulping system and the hardboard manufacturing equipment lines are subject to the "NESHAP for Plywood and Composite Wood Products," 40 CFR Part 63 Subpart DDDD. This permit renewal does not affect these processes, and no change to the permit is needed. The facility is expected to be in continued compliance.

MACT Subpart QQQQ:

The trimboard manufacturing and the finishing lines are subject to the "NESHAP for Surface Coating of Wood Building Products," 40 CFR Part 63 Subpart QQQQ. This permit renewal does not affect these processes, and no change to the permit is needed. The facility is expected to be in continued compliance.

o MACT Subpart ZZZZ:

- The two diesel-fired emergency back-up fire pumps (ID Nos. ES-FP1 and ES-FP2) are subject to the "NESHAP for Stationary Reciprocating Internal Combustion Engines," 40 CFR Part 63 Subpart ZZZZ. This permit renewal does not affect these engines, and no change to the permit is needed. The facility is expected to be in continued compliance.
- The four gasoline generators (IES-G1, IES-G2, IES-G3, and IES-G4) are NOT subject to 40 Subpart ZZZZ because they are not stationary engines.
- These portable gasoline-fired generators (IES-G5 through IES-G15) are NOT subject to 40 CFR 63, Subpart ZZZZ. As per 40 CFR 1068.30, these generators are non-road engines because they frequently move around the facility and do not remain in one location, and this facility is not a seasonal source. As such, the engines would not be considered stationary and would not be covered under this regulation.

o MACT Subpart DDDDD:

The boilers (ID Nos. ES-B1, ES-B2, ES-B3, ESB4T, and ES-B5T) are subject to the "NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers," 40 CFR Part 63 Subpart DDDDD beginning on May 20, 2019.

o MACT Subpart CCCCCC:

The Gasoline Tank (ID Nos. IES-LP IT-4) is NOT subject to the "National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities", 40 CFR 63 Subpart CCCCCC. As per email from Ms. Sharon Wetzel (facility) on November 10, 2017, the tank usage is less than 10,000 gallons per month, the facility would only be subject to the work practices (as per 40 CFR 63.11116) and recordkeeping requirements of this regulation. The recordkeeping is for gasoline throughput.

NSR/PSD

LP is located in Wilkes County, which is currently designated as attainment or unclassified for all PSD regulated pollutants. This facility is major for PSD purposes because it has potential emissions of VOC, NO_x, SO₂, and CO above 250 tons per year.

The initial TV permit indicated boiler ES-B3 has undergone a PSD analysis for emissions of particulate matter in the past, although it was unclear when the PSD analysis was conducted. The BACT limit agreed upon was 0.10 pounds of PM per million Btu from boiler ES-B3. Removing No. 6 fuel oil will not affect this BACT limit, and LP is expected remain in compliance with this limit with the new ESP as particulate control on boiler ES-B3. The new ESP is also expected to allow compliance with the BACT limit when firing sander dust in boiler ES-B3.

The permit includes several PSD avoidance conditions. The table below lists the avoidance limits and provides information on the reason each condition was added to the permit. Also provided in the table is a summary of projects using PAE to avoid PSD in accordance with 02D .0530(u).

Emission Source ID	Pollutant	Limit (tpy)	Comments			
PSD Avoidance Conditions						
ES-SM Groove Sealer spray booth	VOC	40	This avoidance condition was included in the initial TV permit, Air Permit No. 03909T34.			

Emission Source ID	Pollutant	Limit (tpy)	Comments
ES-B3 Biomass/ natural gas- fired boiler hybrid suspension grate type	NOx	355.3	This avoidance condition was added under Air Permit No. 03909R28. The boiler was modified to allow the boiler to burn fine wood dust in addition to the larger size woodwaste. To avoid PSD, the facility must limit potential NO _x emissions to 355.3 tpy. The avoidance limit was based on 39.9 tpy plus actual emissions of NO _x of 315.4 tpy. LP is limited to 180.6 million Btu/hr per 12-month period on a 12-month rolling average to ensure the NOx limit is not exceeded. See permit review for Air Permit No. 03909R28 for full discussion. (Michael Smithwick, 05/10/2000).
ES-DGEN1 and ES-DGEN2 Two backup diesel- fired generators	NOx	40	This avoidance condition was added under Air Permit No. 03909T41. The addition of these engines had potential emissions of NOx well over 40 tpy. The operating hours of these engines are limited to 2,500 hours per year total to limit emissions to less than 40 tpy. See permit review for Air Permit No. 03909T41 for full discussion. (Steve Hall, 12/15/2006).
ES-DGEN One temporary diesel-fired emergency generator	NOx	40	This avoidance condition was added under Air Permit No. 03909T42. The addition of this engine had potential emissions of NOx well over 40 tpy. The operating hours of this engine are limited to 500 hours. This limit was requested by the applicant. See permit review for Air Permit No. 03909T42 for full discussion. (Gautam Patnaik, 02/04/2008).
	PA	AE Demonstratio	ons under 02D .0530(u)
ES-B3 Biomass/ natural gas- fired boiler hybrid suspension grate type	Multiple	Recordkeeping to assure compliance	A permit condition specifying that the facility was avoiding applicability of PSD using PAE in accordance with 02D .0530(u) was added under Air Permit No. 03909T42. Boiler ES-B3 was modified to control emission from zones 3 through 7 of Line 1 steam-heated bake oven (ID No. ES-L1BO) and of Line 2 steam-heated bake oven (ID No. ES-L2BO). LP used PAE to demonstrate that using boiler ES-B3 as control for these emission sources would not result in significant emissions increase. See permit review for Air Permit No. 03909T42 for full discussion. (Gautam Patnaik, 02/04/2008). This requirement is being removed under this permit modification because the recordkeeping requirements have been met.

Emission Source ID	Pollutant	Limit (tpy)	Comments
ES-B3 Biomass/ natural gas- fired boiler hybrid suspension grate type	Multiple	Recordkeeping to assure compliance	A permit condition specifying that the facility was avoiding applicability of PSD using PAE in accordance with 02D .0530(u) was added under Air Permit No. 0309T52. The venturi scrubber on boiler ES-B3 will be replaced with an ESP. LP used PAE to demonstrate that replacing the venturi scrubber will not result in significant emissions increase.

Removing No. 6 fuel oil as a permitted fuel for boiler ES-B3 will not affect the PSD avoidance conditions cited in the table above.

112(r)

This facility is **NOT** subject to the requirements of the Chemical Accident Release Prevention Program, Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in 112(r). The facility is expected to be in continued compliance. This permit renewal does not change this status.

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, the provisions of the Compliance Assurance Monitoring (CAM) rule are applicable to emission units that meet all the following criteria:

- Criteria #1: The unit is subject to an emission limitation AND uses a control device to achieve compliance with the limit:
- Criteria #2: The unit has pre-control potential emissions that are equal to or greater than 100% of the amount (in tpy) required for a source to be classified as a major source (i.e., 100 tpy of any criteria pollutant or 10 tpy of any HAP, North Carolina); and,
- Criteria #3: The unit is not exempt under 40 CFR 64.2(b).

The following table summarizes CAM applicability at Louisiana – Pacific Corporation Roaring River:

		Criteria #2:	Criteria #3:	
	Criteria #1:	Pre-control PTE >100%	Exempt Under	
Emission	Does the Source Use a	of major source	40 CFR	CAM
Unit	Control Device?	thresholds?	64.2(b)?	Source?
ES-B2	PM; CD-4	Yes	•	Yes
ES-B3	PM; CD-3 and CD-4a	Yes	-	Yes

CAM was determined during last renewal. NO changes needed during this permit renewal. Facility is required to be in continued compliance.

8. Facility-Wide Air Toxics:

The facility has previously demonstrated that numerous TAPs are below their Toxics Permitting Emission Rates, in accordance with 02Q .0711. This permit renewal does not affect the facility's status with respect to 02D .1100 and 02Q .0711, and no changes to the permit are needed. Continued compliance is anticipated.

9. Facility Emission Review:

Actual emissions for 2011 through 2015 are reported in the header of this permit review.

10. Facility Comments on Draft Permit

From: Phil Ferguson [mailto:Phil.Ferguson@lpcorp.com]

Sent: Tuesday, March 20, 2018 8:22 AM **To:** Patel, Urva P < Urva.Patel@ncdenr.gov>

Cc: Sharon Wetzel <Sharon.Wetzel@lpcorp.com>; Barker, Robert <robert.barker@ncdenr.gov>; Parekh, Samir

<samir.parekh@ncdenr.gov>; Scott Cranston <Scott.Cranston@lpcorp.com>

Subject: [External] Louisiana Pacific Roaring River Draft Title V Permit # 03909T53

Per your request, attached please find LP's comments in the margin for the draft Title V permit renewal. The comments are minor in nature where incorrect or outdated equipment numbers, capabilities, or references have been used. Please contact me or Sharon Wetzel with any questions or concerns.

Phil Ferguson Corporate Environmental Manager LP Building Products 414 Union Street, Suite 2000 Nashville,TN 37219 W-615-986-5782 C- 615-517-6828

From: Patel, Urva P [mailto:Urva.Patel@ncdenr.gov]

Sent: Tuesday, April 03, 2018 1:06 PM

To: Phil Ferguson < Phil. Ferguson@lpcorp.com>

Cc: Sharon Wetzel <Sharon.Wetzel@lpcorp.com>; Scott Cranston <Scott.Cranston@lpcorp.com>

Subject: RE: [External] Louisiana Pacific Roaring River Draft Title V Permit # 03909T53

I have following concerns on your comments:

Page 19: No gas on B3:-> That is Alternative Operating Scenario.

Please confirm, if you want us to remove this (natural gas-fired boiler-B3) from the permit? That means B3 will be Biomass-fired boiler.

Page 21: No longer have fuel oil :-> Do you want us to remove this from the permit? I need your confirmation for revision of this permit condition (Monitoring/Recordkeeping) as the facility does not use fuel oil anymore.

Please, respond to this email by April 17, 2018.

Thank you.

Regards, Urva

From: Phil Ferguson [mailto:Phil.Ferguson@lpcorp.com]

Sent: Wednesday, April 4, 2018 10:02 AM
To: Patel, Urva P < Urva.Patel@ncdenr.gov>
Cc: Sharon Wetzel < Sharon.Wetzel@lpcorp.com>;

Subject: [External] Louisiana Pacific Roaring River Draft Title V Permit # 03909T53

Both of those are correct.

No gas on B3. If we choose to add gas firing capabilities other than pilot or light off in the future to Boiler 3, we would need to perform PSD evaluation.

No longer have fuel oil. Yes you can remove monitoring/recordkeeping references to fuel oil firing capabilities from the permit.

11. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 02Q .0521 above. Virginia, Tennessee and Forsyth County-local program are an affected state and a local program within 50 miles of the facility.

12. Other Regulatory Considerations:

- NO application fee is required with this application.
- A Professional Engineers Seal is NOT required with this application.
- A zoning consistency determination is NOT required for this application.
- A 30-day public notice and 45-day EPA review is required for this application.

13. Recommendations/Conclusion:

TBD