

Prevention of Significant Air Quality Deterioration Review

Final Determination

August 30, 2018

Facility Name: Georgia-Pacific Wood Products LLC (Warrenton Lumber Plant)

City: Warrenton

County: Warren

AIRS Number: 04-13-301-00003

Application Number: TV-237752

Date Application Received: April 20, 2018



State of Georgia
Department of Natural Resources
Environmental Protection Division
Air Protection Branch

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BACKGROUND

On April 20, 2018, Georgia-Pacific Wood Products - Warrenton (hereafter Warrenton Lumber Plant) submitted an application for an air quality permit to construct and operate two direct-fired continuous drying kilns (205 and 206), sawdust fuel silo No. 2 (205A), to replace the existing sawmill (101) with a new sawmill (103), replace existing planer mill (301) with a new planer mill (300) and for shutting down existing batch drying kiln 202. The facility is located at 331 Thomson Hwy. NE in Warrenton (Warren County). The proposed project will increase production from the drying kilns at the Warrenton lumber plant to 394,500 MBF/yr. The continuous kiln 205 will be fired with sawdust fuel with a fuel oil startup and continuous kiln 206 will be fired with natural gas. For operational flexibility, one batch drying kiln (203) and the natural gas package boiler (400C) will be retained and used on a limited basis. The other remaining batch drying kiln (202) will be shut down and removed from the operation.

On July 24, 2018, the Division issued a Preliminary Determination stating that the modifications described in Application No. TV-237752 should be approved. The Preliminary Determination contained a draft Air Quality Permit for the construction and operation of the new equipment.

The Division requested that Georgia-Pacific Warrenton Lumber Plant place a public notice in a newspaper of general circulation in the area of the existing facility notifying the public of the proposed construction and providing the opportunity for written public comment. Such public notice was placed in the July 27, 2018 issue of the "*Warrenton Clipper*" (legal organ for Warren County) and in the July 26, 2018 issue of "McDuffie Progress". The public comment period expired on August 27, 2018.

No negative comments were received from the general public during the public notice period.

APPENDIX A

AIR QUALITY PERMIT

Permit Amendment No. 2421-301-0003-V-04-1

ISSUANCE DATE:



Air Quality - Part 70 Operating Permit Amendment

Facility Name: Georgia-Pacific Wood Products LLC
(Warrenton Lumber Facility)

Facility Address: 331 Thomson Highway, NE
Warrenton, Georgia 30828 (Warren County)

Mailing Address: 331 Thomson Highway, NE
Warrenton, Georgia 30828

Parent/Holding Company: Georgia-Pacific LLC

Facility AIRS Number: 04-13-301-00003

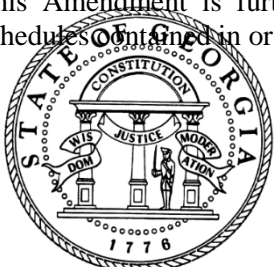
In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction permit for:

Construction and operation of two direct-fired continuous drying kilns 205 and 206, replacement of sawmill (101), sawdust fuel silo (205B) and planer mill (301) equipment and shutting down batch drying kiln 202.

This Permit Amendment shall also serve as a final amendment to the Part 70 Permit unless objected to by the U.S. EPA or withdrawn by the Division. The Division will issue a letter when this Operating Permit amendment is finalized.

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Amendment and Permit No. **2421-301-0003-V-04-0**. Unless modified or revoked, this Amendment expires upon issuance of the next Part 70 Permit for this source. This Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in App No. **TV-237752** dated **April 19, 2018**; any other applications upon which this Amendment or Permit No. **2421-301-0003-V-04-0** are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **8** pages.



Richard E. Dunn, Director
Environmental Protection Division

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PART 1.0 FACILITY DESCRIPTION

1.3 Process Description of Modification

As a part of the revised Phase II Warrenton plant expansion, Georgia-Pacific proposes to increase production of dry lumber from 240 MMBF/year to 394.5 MMBF/year by installing two continuous direct-fired dual path kilns (205 and 206), installing a new sawmill (103) and planer mill (300) and shut down the existing sawmill (101) and planer mill (301). For operational flexibility, one batch drying kiln (203) and the natural gas package boiler (400C) will be retained and used on a limited basis. The revised scope of the Phase II is listed below.

- **Debarker (101) (New)** – The existing debarker (102S) will be replaced with a high-speed ring debarker (101).
- **Sizing Saws (102S) (New)** – The existing sizing saws (102S) will be replaced with a new log bucking saw (102).
- **Sawmill (103) (New)** – The existing sawmill (101) and associated big chipper (103S), small chipper (104S), and bark/sawdust/chip handling system will be replaced with a new sawmill (103).
- **Continuous Kiln (205) (New)** – The continuous kiln (205) will have a maximum hourly and annual design capacities of 20 MBF/hr and 131,500 MBF/yr respectively and will be equipped with a 40 MMBtu/hr sawdust gasifier burner. Diesel fuel will be used as a startup fuel for this kiln.
- **Continuous Kiln (206) (New)** – The continuous kiln (206) will have a maximum hourly and annual design capacities of 20 MBF/hr and 131,500 MBF/yr respectively and will be equipped with a 40 MMBtu/hr natural gas burner.
- **Sawdust Fuel Silo (205A) (New)** – Installation of a new sawdust fuel silo (205A) equipped with cyclofilter to provide sawdust to the continuous kiln (205).
- **Batch Kiln (203) (Existing)** – The batch drying kiln (203) will be retained and used on a limited basis. The projected annual production for the batch drying kiln (203) will be 33,000 MBF.
- **Natural Gas Package Boiler (400C) (Existing)** – The natural gas package boiler (400C) will be retained to supply steam for the batch drying kiln (203) in its limited operations mode. The annual natural gas consumption for the package boiler (400C) will be limited to 129 million Cu.Ft./year.
- **Batch Kiln (202) (Removed)** – Upon completing the shakedown of the continuous kilns (205 and 206), the batch drying kiln (202) will be shutdown and removed from the site.
- **Planer Mill (300/302/PMC1/PMC2) (New)** – The existing planer mill (301) will be replaced with a new high-speed planer (300), trim hog, and planer shaving conveying systems (pneumatic and mechanical). The planer shaving and material separation units (PMC1 & PMC2) will be replaced with a new cyclofilter.

Title V Permit Amendment

Georgia-Pacific Wood Products LLC – Warrenton Lumber Facility

Permit No.: 2421-301-0003-V-04-1

PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.1.1 Additional Emission Units

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
400C ⁺	Natural gas Package Boiler 37.53 MMBtu/hr (129 MMcu.Ft./yr)	40 CFR 52.21 PSD/BACT GA Rule 391-3-1-.02(2)(d) GA Rule 391-3-1-.02(2)(g) *40 CFR 63 Subparts A and 5D	3.2.4 , 3.3.2, 3.3.3, 3.3.4, 3.3.5, 3.4.3, 3.4.5, 3.5.1, 5.2.6, 6.1.7.b.iii, 6.2.4, 6.2.8	None	None
202 ⁺	Drying Kiln No. 2 Indirect steam heated 1973 (Removed in Phase 2)	40 CFR 52.21 PSD/BACT 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.3.1, 3.3.4, 3.3.5, 3.4.1, 3.4.2, 3.5.3	None	None
203	Drying Kiln No. 3 Indirect steam heated 1976 (33 MMBF/yr)	40 CFR 52.21 PSD/BACT 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.3.1, 3.2.3, 3.3.4, 3.3.5, 3.4.1, 3.4.2, 3.5.3, 6.1.7.b.i, 6.2.5, 6.2.6, 6.2.7, 6.2.8	None	None
204	Drying Kiln No. 4 direct-fired dual path continuous kiln 131.5 MMBF/yr with up to 40 MMBtu/hr heat input. 40 MMBTU/hr sawdust burner with fuel oil startup	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 40 CFR 52.21 PSD/BACT GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e) GA Rule 391-3-1-.02(2)(g)	3.2.1, 3.3.1, 3.3.4, 3.3.5, 3.4.1, 3.4.2, 3.4.8, 3.5.3, 6.1.7.b.ii, 6.2.5, 6.2.6, 6.2.7, 6.2.9	None	None
205	Drying Kilns No. 5 direct- fired dual path continuous kiln 131.5 MMBF/yr with up to 40 MMBtu/hr heat input saw dust burner with fuel oil startup. (Operational starting Phase 2)	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 40 CFR 52.21 PSD/BACT GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e) GA Rule 391-3-1-.02(2)(g)	3.2.1, 3.3.1, 3.3.4, 3.3.5, 3.4.1, 3.4.2, 3.4.8, 3.5.3, 6.1.7.b.ii, 6.2.3, 6.2.5, 6.2.6, 6.2.7, 6.2.9	None	None
206	Drying Kilns No. 6 direct- fired dual path continuous kiln 131.5 MMBF/yr with up to 40 MMBtu/hr heat input natural gas burner. (Operational starting Phase 2)	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 40 CFR 52.21 PSD/BACT GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e) GA Rule 391-3-1-.02(2)(g)	3.2.1, 3.3.1, 3.3.4, 3.3.5, 3.4.1, 3.4.2, 3.4.8, 3.5.3, 6.1.7.b.ii, 6.2.3, 6.2.5, 6.2.6, 6.2.7, 6.2.9	None	None
204A 205A	Sawdust Fuel Silo Nos 1 & 2.	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.3.4, 3.3.5, 3.4.1, 3.4.2, 3.5.2, 6.1.7.c.i	SDCF1 SDCF2	Cyclofilters
300	Planer Mill with Planer Hog	GA Rule 391-3-1-.02(2)(b) GA Rule 391-3-1-.02(2)(e)	3.3.4, 3.3.5, 3.4.1, 3.4.2, 3.5.2, 6.1.7.c.i	PMCF	Cyclofilter

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.

3.2 Equipment Emission Caps and Operating Limits

Amended Conditions

- 3.2.1 The Permittee shall not dry more than a combined total of **394.5** million board feet of lumber from the drying kilns **203, 204, 205 and 206** during any twelve consecutive months. If required, the VOC emissions from the continuous kilns 204, 205 and 206 shall be estimated using a VOC emission factor of **4.28 lb/MBF (as Carbon)**.
[PSD/BACT, 40 CFR 52.21]
- 3.2.2 Condition deleted

New Conditions

- 3.2.3 The Permittee shall not dry more than **33** million board feet of lumber from the batch drying Kiln 203 during any twelve consecutive months, upon startup of continuous drying Kilns **205 and 206**. If required, the VOC emissions from the batch kiln 203 shall be estimated using a VOC emission factor of **4.28 lb/MBF (as Carbon)**.
[PSD/BACT, 40 CFR 52.21]
- 3.2.4 The Permittee shall not burn more than **129** million Cu.Ft. natural gas in the package boiler (400C) during any twelve consecutive months, upon startup of continuous drying kilns 205 and 206.
[PSD, 40 CFR 52.21]

3.3 Equipment Federal Rule Standards

Amended Conditions

- 3.3.2 The Permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as found in 40 CFR Part 63, in Subpart A – “General Provisions.” and Subpart DDDDD – “National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial, and Institutional Boilers and Process Heaters.” for operation of natural gas-fired package boiler 400C. This condition is effective as long as the gas-fired boiler 400C is on site providing steam to the batch drying kiln 203.
[40 CFR 63 Subparts A and DDDDD]
- 3.3.4 The Permittee shall construct and operate the sources or modifications described in Application No. TV-237752 that is subject to Georgia Rule 391-3-1-.02(7) in accordance with the application submitted pursuant to that rule. If the Permittee constructs or operates a source or modification not in accordance with the application submitted pursuant to that rule or with the terms of any approval to construct, the Permittee shall be subject to appropriate enforcement action.
[40 CFR 52.21(r)(1)]

Title V Permit Amendment

- 3.3.5 Approval to construct sources or modifications defined in Application No. TV-237752 shall become invalid if construction of the revised second phase (Phase II) is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more or if construction is not completed within a reasonable time. The Director may extend the 18-month period upon a satisfactory showing that an extension is justified.
[40 CFR 52.21(r)(2)]

3.4 Equipment SIP Rule Standards

Amended Conditions

- 3.4.1 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from the drying kilns (203, 204, 205 and **206**), planer mill **with planer hog** (300), sawdust fuel silos (**204A and 205A**), any gases which exhibit visible emissions, the opacity of which is equal to or greater than forty (40) percent.
[391-3-1-.02(2)(b)1.]
- 3.4.2 The Permittee shall not discharge, or cause the discharge into the atmosphere from the drying kilns (203, 204, 205 and **206**), planer mill **with planer hog** (300), sawdust fuel silos (**204A and 205A**) each, particulate emissions in excess of the rate derived from:
[391-3-1-.02(2)(e)1.(i)]
- $E = 4.1 * P^{0.67}$; for process input weight rate up to and including 30 tons per hour.
- $E = 55 * P^{0.11} - 40$; for process input weight rate above 30 tons per hour.
where P equals process input weight rate in tons per hour and E equals the allowable emission rate in pounds per hour.
- 3.4.3 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from the boiler (400C) any gases which:
- Contain particulate emissions in excess of the rate derived from $P = 0.5 * (10/R)^{0.5}$ where R equals heat input rate in million BTU per hour and P equals the allowable emission rate in pounds per million BTU.
[391-3-1-.02(2)(d)2.(ii)]
 - Exhibit visible emissions, the opacity of which is equal to or greater than twenty (20) percent except for one six minute period per hour of not more than twenty-seven (27) percent opacity.
[391-3-1-.02(2)(d)3]
- 3.4.4 Condition deleted.
- 3.4.5 The Permittee shall burn natural gas only in the package boiler (400C) unless otherwise specified by the Director.
[391-3-1-.02(2)(g)2]

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New Condition

- 3.4.8 The Permittee shall not burn fuel containing more than 2.5 percent sulfur, by weight, in the dryer burners of drying kilns 204, 205 and 206 unless otherwise specified by the Director.
[391-3-1-.02(2)(g)2]

3.5 Equipment Standards Not Covered by a Federal or SIP Rule and Not Instituted as an Emission Cap or Operating Limit

Amended Conditions

- 3.5.2 For each week or portion of each week of operation of the **sawdust fuel silos (204A and 205A)** and the planer mill **with planer hog (300)** inspect the exterior of the **cyclofilters (SDCF1, SDCF2 and PMCF)** for holes in the body or evidence of malfunction in the interior of the cyclone.

Any adverse condition identified by the weekly inspection of the cyclones that is not corrected within 48 hours shall be recorded, as an excursion, in a maintenance log, along with a description of the corrective action and when it was completed. These records shall be kept in a form suitable for inspection or submittal to the Division.

[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

- 3.5.3 Within 180 days of the startup of the direct-fired continuous Kilns 204, 205 **and 206** the Permittee shall develop and implement a Work Practice and Preventive Maintenance Program (PMP) for the continuous drying Kilns (204, 205 **and 206**) to assure that the provisions of Condition 8.17.1 are met. The program shall be subject to review and modification by the Division. At a minimum, the following operational and maintenance checks shall be made and a record of the findings and corrective actions taken, shall be kept in electronic or manual maintenance logs:

[391-3-1-.02(6)(b)1, 40 CFR 52.21, and 40 CFR 70.6(a)(3)(i)]

a. General Work Practice Standards for Wood-Drying Kiln Operation:

- i. The lumber kiln drying operation target final moisture content will be 12% or greater based on a 12-month rolling average. Moisture content will be measured with a moisture meter **after** the planer mill.
- ii. The lumber kiln shall be operated following a wet bulb temperature set-point-drying schedule of 240°F or lower for steam batch kiln 203.
- iii. Operate the lumber drying kilns (**204, 205 and 206**) per the Preventive Maintenance Program (PMP) developed for the drying kilns and maintain records documenting compliance with this maintenance plan. With future equipment changes or modifications these preventative maintenance activities can be modified pending approval from EPD.

PART 4.0 REQUIREMENTS FOR TESTING

4.2 Specific Testing Requirements

4.2.1 Condition deleted

4.2.2 Condition deleted.

PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)

5.2 Specific Monitoring Requirements

5.2.1 Condition deleted.

5.2.2 Condition deleted.

5.2.3 Condition deleted.

5.2.4 Condition deleted.

5.2.5 Condition deleted.

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS

6.1 General Record Keeping and Reporting Requirements

6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

- a. Excess emissions: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

None required to be reported in accordance with Condition 6.1.4.

- b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)

- i Upon startup of continuous Kiln 205 and 206 any 12-consecutive month total lumber dried in batch Kiln 203 in excess of **33** million board feet.
 - ii Any 12-consecutive month the combined total lumber dried in drying kilns 203, 204, 205 and **206** exceeds **394.5** MMBF.
 - iii. The amount of natural gas combusted in the package boiler 400C in excess of **129** million Cu.Ft. during any consecutive twelve months, upon startup of continuous drying kilns 205 and 206
- c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)
- i. Any adverse condition discovered by the weekly inspections of the cyclofilters (**PMCF, SDCF1 and SDCF2**) that are not corrected within 48 hours as defined in Condition 3.5.2.

6.2 Specific Record Keeping and Reporting Requirements

6.2.1 Condition deleted

6.2.2 Condition deleted

Amended Conditions

- 6.2.3 The Permittee shall furnish the Division written notification of the actual date of initial startup of continuous lumber drying kilns (205 **and 206**) within 15 days after such date.
[391-3-1-.03(2)(c) and 40 CFR 60.49b(a)]
- 6.2.5 The Permittee shall maintain monthly records of the amount of the lumber processed through the batch Kiln 203 and in the continuous kilns 204, 205 **and 206**, necessary to confirm compliance with the production limits in Conditions 3.2.1 and 3.2.3.
[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i) and 40 CFR 52.21]
- 6.2.6 The Permittee shall calculate and record each month, the 12 consecutive month total of lumber dried in batch drying Kiln 203 and in continuous drying kilns 204, 205 **and 206**, using the monthly records required in Condition 6.2.5. A 12-consecutive month total shall be defined as the sum of a current month's total plus the totals for the previous eleven consecutive months.
[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i) and 40 CFR 52.21]

- 6.2.7 The Permittee shall submit a semiannual report of the 12-consecutive month totals of lumber dried (in million board feet) in batch Kiln 203 and in lumber drying Kilns 204, 205 **and 206** by August 29 of the calendar year of record and by February 28 of the year following the calendar year of record, unless otherwise approved by the Division. The semiannual reporting periods shall be January 1 through June 30 and July 1 through December 31. The reports, submitted in a manner suitable to the Division and shall be prepared from records required by Conditions 6.2.5 and 6.2.6 and contain six 12-consecutive month totals of lumber dried in the batch Kiln 203 and in the continuous drying Kilns 204, 205 **and 206**.
[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i) and 40 CFR 52.21]
- 6.2.8 The Permittee shall notify the Division in writing if the batch Drying kiln 203 production exceeds **2.75** million board feet during any calendar month **and/or the natural gas consumption in the package boiler 400C exceeds 10.750 million Cu.Ft. during any month.** This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the production limit in Condition 3.2.3 and 3.2.4.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]
- 6.2.9 The Permittee shall notify the Division in writing if the combined total amount of lumber dried in the drying kilns exceeds **32.87** million board feet during any month (after the startup of the continuous kilns 205 and 206). This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the production limit in Condition 3.2.1.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]