



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Air Quality - Part 70 Operating Permit Amendment

Facility Name: West Fraser – Fitzgerald Lumber Mill
Facility Address: 173 Peachtree Road
Fitzgerald, Georgia 31750 Ben Hill County
Mailing Address: 173 Peachtree Road
Fitzgerald, Georgia 31750
Parent/Holding Company: West Fraser, Inc.
Facility AIRS Number: 04-13- 017-00008

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 permit for:

The construction and operation of two continuous direct-fired kilns and a new planer mill.

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. 2421-017-0008-V-05-0. 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-234867 dated **April 18, 2018**; any other applications upon which this Amendment or Permit No. 2421-017-0008-V-05-0 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 **11** pages.



DRAFT

Richard E. Dunn, Director
Environmental Protection Division

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PART 1.0 FACILITY DESCRIPTION**1.3 Process Description of Modification**

West Fraser – Fitzgerald Lumber Mill (hereinafter “facility”) submitted a Title V permit amendment application dated April 18, 2018, which was logged in as Application No. TV-234867, for the authorization to construct and operate two direct natural gas-fired continuous kilns (ID Nos. CDK1 and CDK2) that will replace existing Kilns KL01, KL02, and KL03. The facility also requested to incorporate the off-permit-change that was approved on April 10, 2018, for replacing the planer mill (ID No. PL) and its cyclone (PLCY) with a new planer mill (ID No. PL) and a new cyclone (ID No. PLCY2), into the permit amendment.

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West Fraser – Fitzgerald Lumber Mill

Permit No.: 2421-017-0008-V-05-1

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 Updated Emission Units

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
KL01	Drying Kiln No. 1 Direct-fired / Batch Fuel Type = Wood Capacity = 60 MMbf/yr	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1. 391-3-1-.02(2)(g)2. 391-3-1-.02(2)(n)	3.2.3, 3.4.1, 3.4.2, 3.4.3, 3.4.4, 3.4.5, 6.2.1	N/A	None
KL02	Drying Kiln No. 2 Direct-fired / Batch Fuel Type = Wood Capacity = 60 MMbf/yr	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1. 391-3-1-.02(2)(g)2. 391-3-1-.02(2)(n)	3.2.3, 3.4.1, 3.4.2, 3.4.3, 3.4.4, 3.4.5, 6.2.1	N/A	None
KL03	Drying Kiln No. 3 Direct-fired / Batch Fuel Type = Wood Capacity = 60 MMbf/yr	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1. 391-3-1-.02(2)(g)2. 391-3-1-.02(2)(n)	3.2.3, 3.4.1, 3.4.2, 3.4.3, 3.4.4, 3.4.5, 6.2.1	N/A	None
CDK1	Drying Kiln No. 4 Direct-fired / Continuous Fuel Type = Wood Capacity = 120 MMbf/yr	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1. 391-3-1-.02(2)(g)2. 391-3-1-.02(2)(n)	3.2.1, 3.2.3, 3.2.4, 3.2.5, 3.2.6, 3.2.7, 3.2.8, 3.3.1, 3.4.4, 3.4.5, 3.4.6, 3.4.7, 4.2.1, 6.1.7, 6.2.1, 6.2.2, 6.2.3	N/A	None
CDK2	Drying Kiln No. 5 Direct-fired / Continuous Fuel Type = Wood Capacity = 120 MMbf/yr	40 CFR 63 Subpart A 40 CFR 63 Subpart DDDD 391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1. 391-3-1-.02(2)(g)2. 391-3-1-.02(2)(n)	3.2.1, 3.2.2, 3.2.4, 3.2.5, 3.2.6, 3.2.7, 3.2.8, 3.3.1, 3.4.4, 3.4.5, 3.4.6, 3.4.7, 4.2.1, 6.1.7, 6.2.1, 6.2.2, 6.2.3	N/A	None
PL	Planer Mill	391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1. 391-3-1-.02(2)(n)	3.4.1, 3.4.2, 3.4.4, 3.4.5, 3.4.6, 3.4.7, 5.2.1, 6.1.7	PLCY2	Planer Mill Shavings Cyclone 2
HM	Hammer Mill	391-3-1-.02(2)(b)1. 391-3-1-.02(2)(e)1. 391-3-1-.02(2)(n)	3.4.1, 3.4.2, 3.4.4, 3.4.5, 3.4.6, 3.4.7, 5.2.1, 6.1.7	HMCY	Hammer Mill Cyclone

* 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.

** New emission unit is in bold.

*** New and modified conditions are in bold.

**** PLCY2 was authorized to be constructed per an OPC approval letter dated April 10, 2018 to replace existing Cyclone PLCY as part of the planer mill replacement modification.

3.2 Equipment Emission Caps and Operating LimitsNew Conditions

- 3.2.1 The Permittee shall construct and operate the drying kilns (ID Nos. CDK1 and CDK2) in accordance with the application submitted. 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.
[391-3-1-.02(7)(b)15. and 40 CFR 52.21(r)(1)]
- 3.2.2 Approval to construct the drying kilns (ID Nos. CDK1 and CDK2) shall become invalid if construction 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. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date. For purposes of this Permit, the definition of “commence” is given in 40 CFR 52.21(b)(9).
[391-3-1-.02(7)(b)15. and 40 CFR 52.21(r)(2)]
- 3.2.3 Within 30 days after the initial startup of both the drying kilns (ID Nos. CDK1 and CDK2), the Permittee shall shut down and remove the existing drying kilns (ID Nos. KL01, KL02, and KL03).
[Georgia Air Toxic Guidelines]
- 3.2.4 During the operation of the drying kilns (ID Nos. CDK1 and CDK2), the Permittee shall:
[Georgia Air Toxic Guidelines]
- a. Operate the associated power vents at all time; and
 - b. Operate the power vents so that no air/exhaust in the kiln would exit through any natural draft opening (NDO), as defined in Condition 4.2.1. The differential pressure (vacuum) across each kiln’s NDO shall be maintained at or above the minimum differential pressure established in accordance with Condition 4.2.1. The Permittee may elect to operate the power vents at the minimum flowrate recorded during the performance tests that would create the minimum differential pressure across each NDO.
- 3.2.5 The Permittee shall not process more than 240 million board feet (MMbf) of lumber in CDK1 and CDK2, combined, during any twelve consecutive months.
[40 CFR 52.21]

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- 3.2.6 The Permittee shall fire only clean cellulosic biomass in the continuous drying kilns (ID Nos. CDK1 and CDK2).
[391-3-1-.03(2)(c) and 391-3-1-.02(2)(g)2. (subsumed)]
- 3.2.7 The Permittee shall develop and implement a Work Practice and Preventive Maintenance Program for the drying kilns (ID Nos. CDK1 and CDK2). 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(j), and 40 CFR 70.6(a)(3)(i)]
- a. General Work Practice Standards for Continuous Drying Kiln Operation:
- i. The lumber kiln drying operation target final moisture content will be 9% or greater.
 - ii. The lumber kiln shall be operated following a Dry Bulb temperature set-point-drying schedule of 235°F or lower, with a Wet Bulb temperature of 170°F or lower.
 - iii. Routines for periodic preventative maintenance are detailed in Paragraphs b, c, d, e, and f of this condition, and are based on manufacturer's recommendations.
- b. Routine During Kiln Operation:
- i. Inspect wet bulb socks and replace as needed. Replace a sock daily if it has a tendency to become hard. Check water flow to the wet bulb.
 - ii. Ensure that all Resistance Temperature Detectors (RTDs) are in the airflow.
 - iii. Check all baffles for damage, record problems and repairs done, when kiln is down for repairs.
 - iv. Make certain all fans are running. If one "trips out" frequently, investigate to determine the reason and then document the solution.
 - v. Ensure that the kiln computer controller is functioning properly.
 - vi. Check to verify that the heating system is operating properly.
 - vii. Grease lumber truck wheels.
- c. Weekly Routine:
- i. Replace wet bulb socks on as needed basis.
 - ii. Drain oil or water from transducer air supplies.

- d. Monthly Routine:
 - i. Inspect temperature sensor mounts for damage, when kiln is down for repairs.
 - ii. Ensure control room's air conditioner/heater is working properly for maintaining correct temperature for electrical components.
 - iii. Clean tracks through kilns, to remove accumulated dust, when kiln is down for repairs.
- e. Semi-Annually:
 - i. Check connection on all RTDs.
- f. Annually:
 - i. Check tracks for damage.
 - ii. Inspect area at base of kiln door for damage.
- g. The Permittee shall correct any adverse condition, discovered by an inspection done in accordance with this condition, in the most expedient manner possible and note the corrective action taken. If not immediately correctable, the Permittee shall implement a corrective action plan within 24 hours after an adverse condition has been discovered during inspections per Paragraphs b. through f. A record of the adverse condition and the corrective action(s) taken shall be kept.

The Permittee shall also record any exceedances of the work practice standards and preventive maintenance program and corrective action taken to prevent any future exceedances.

- 3.2.8 The Permittee shall submit a revised toxic impact assessment to demonstrate compliance with the Georgia Air Toxic Guidelines for the entire facility, if test results from the performance testing required in Condition 4.2.1 fail to prove that each of the drying kilns (ID Nos. CDK1 and CDK2) meets the requirements of a permanent total enclosure [Georgia Air Toxic Guidelines]

3.3 Equipment Federal Rule Standards

New Condition

- 3.3.1 Upon the initial startup of the drying kilns (ID Nos. CDK1 and CDK2), the Permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as found in 40 CFR 63 Subpart A – “General Provisions,” and Subpart DDDD – “National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products” for operation of Drying Kilns CDK1 and CDK2. [40 CFR 63 Subpart A and Subpart DDDD]

3.4 Equipment SIP Rule Standards

Modified Conditions

- 3.4.1 The Permittee shall not cause, let, suffer, permit or allow emissions from the direct-fired lumber drying kilns with ID Nos. KL01, KL02, and KL03, the planer mill with ID No. PL, and the hammer mill with ID No. HM, the opacity of which is equal to or greater than forty (40) percent.
[391-3-1-.02(2)(b)1.]

This Condition shall become null and void upon the shutdown of the existing drying kilns (ID Nos. KL01, KL02, and KL03).

- 3.4.2 The Permittee shall not cause, let, suffer, permit, or allow the emission from the direct-fired lumber drying kilns with ID Nos. KL01, KL02, and KL03, the planer mill with ID No. PL, and the hammer mill with ID No. HM, each, particulate matter (PM) in total quantities equal to or exceeding the allowable rate as calculated using the applicable equation below, unless otherwise specified in this Permit.
[391-3-1-.02(2)(e)1.(i)]

- a. $E = 4.1 * P^{0.67}$; for process input weight rate up to and including 30 tons per hour.
- b. $E = 55 * P^{0.11} - 40$; for process input weight rate above 30 tons per hour.

Where: E = allowable emission rate in pounds per hour;
P = process input weight rate in tons per hour.

This Condition shall become null and void upon the shutdown of the existing drying kilns (ID Nos. KL01, KL02, and KL03).

- 3.4.3 The Permittee shall not burn fuel containing more than 2.5 percent sulfur, by weight, in the wood flour fired kiln burners.
[391-3-1-.02(2)(g)2.]

This Condition shall become null and void upon the shutdown of the existing drying kilns (ID Nos. KL01, KL02, and KL03).

New Conditions

- 3.4.6 The Permittee shall not cause, let, suffer, permit or allow emissions from the drying kilns (ID Nos. CDK1 and CDK2), the planer mill (ID No. PL), and the hammer mill (ID No. HM), the opacity of which is equal to or greater than forty (40) percent.
[391-3-1-.02(2)(b)1.]

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- 3.4.7 The Permittee shall not cause, let, suffer, permit, or allow the emission from the drying kilns (ID Nos. CDK1 and CDK2), the planer mill (ID No. PL), and the hammer mill (ID No. HM), each, particulate matter (PM) in total quantities equal to or exceeding the allowable rate as calculated using the applicable equation below, unless otherwise specified in this Permit.

[391-3-1-.02(2)(e)1.(i)]

- a. $E = 4.1 * P^{0.67}$; for process input weight rate up to and including 30 tons per hour.
- b. $E = 55 * P^{0.11} - 40$; for process input weight rate above 30 tons per hour.

Where: E = allowable emission rate in pounds per hour;

P = process input weight rate in tons per hour.

PART 4.0 REQUIREMENTS FOR TESTING**4.1 General Testing Requirements**

- 4.1.3 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Sections 3.2, 3.3, 3.4 and 3.5 which pertain to the emission units listed in Section 3.1 are as follows:
- a. Method 1 shall be used for the determination of sample point locations.
 - b. Method 2 shall be used for the determination of stack gas flow rate.
 - c. Method 3 or 3A shall be used for the determination of stack gas molecular weight.
 - d. Method 3B shall be used for the determination of the emission rate correction factor or excess air (Method 3A may be used as an alternative to Method 3B);
 - e. Method 4 shall be used for the determination of stack gas moisture.
 - f. Method 5 shall be used for the determination of the particulate matter concentration.
 - g. Method 9 and the procedures contained in Section 1.3 of the above referenced document shall be used for the determination of opacity.
 - h. Method 204 shall be used for the determination of the capture efficiency of a permanent total enclosures.

Minor changes in methodology may be specified or approved by the Director or his designee when necessitated by process variables, changes in facility design, or improvement or corrections that, in his opinion, render those methods or procedures, or portions thereof, more reliable.

[391-3-1-.02(3)(a)]

4.2 Specific Testing Requirements

- 4.2.1 Within 180 days after the initial startup of the new continuous drying kilns (ID Nos. CDK1 and CDK2), the Permittee shall conduct performance tests to demonstrate that each kiln is a permanent total enclosure as defined in Method 204, in which all air/exhaust in the kiln exits the kiln through the power vent and no air/exhaust in the kiln exits the kiln through any NDO. A kiln's NDO includes but are not limited to doors and any vents other than the power vents. Using the results of the performance tests, the Permittee shall record and establish a minimum differential pressure, in inches of water column, across each kiln's NDO that demonstrates the kiln as being a permanent total enclosure.

[391-3-1-.02(6)(b)]

PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)

5.1 General Monitoring Requirements

- 5.1.1 Any continuous monitoring system required by the Division and installed by the Permittee shall be in continuous operation and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Monitoring system response, relating only to calibration checks and zero and span adjustments, shall be measured and recorded during such periods. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service.
[391-3-1-.02(6)(b)1]

5.2 Specific Monitoring Requirements

Modified Condition

- 5.2.1 The Permittee shall, for each week or portion of each week of operation of the units controlled by Cyclones PLCY2 and HMCY, inspect the exterior of the cyclones for holes in the body or evidence of malfunction in the interior of the cyclone. Any adverse condition discovered by this inspection shall be corrected in the most expedient manner as possible. The Permittee shall record the incident as an excursion and note the corrective action taken.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS**6.1 General Record Keeping and Reporting Requirements**Modified Condition

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. Any twelve consecutive month period for which the total amount of lumber dried in drying kilns (ID Nos. CDK1 and CDK2), combined, exceeds 240 million board feet.
 - ii. Any time that the fuel burned in the drying kilns (ID Nos. CDK1 and CDK2) does not meet the requirements specified in Condition 3.2.6.
- 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 revealed by the cyclone inspection required by Condition 5.2.1.
 - ii. Any time Drying Kilns CDK1's and CDK2's power vents are not operated when the associate kiln is in operation.

6.2 Specific Record Keeping and Reporting Requirements

- 6.2.1 The Permittee shall furnish the Division written notification as follows:
[40 CFR 70.6(a)(3)(i) and 391-3-1-.02(6)(b)1.]
- a. The actual dates of initial startup of the drying kilns (ID Nos. CDK1 and CDK2), within 15 days after such dates.
 - b. Certification that a final inspection has shown that construction has been completed in accordance with the application, plans, specifications, and supporting documents submitted in support of the Permit within 60 days after the initial startup.
 - c. The actual date when the existing drying kilns (ID Nos. KL01, KL02, and KL03) permanently cease operation within 30 days after such date.
- 6.2.2 The Permittee shall maintain monthly records of the amount of the dried lumber processed through the drying kilns (ID Nos. CDK1 and CDK2), combined, necessary to confirm compliance with the production limit in Condition 3.2.5. The records shall be retained in a permanent form suitable and available for inspection or submittal to the Division upon request. These records shall be retained for at least five years following the day of record. The Permittee shall notify the Division in writing if the combined production through Drying Kilns CDK1 and CDK2 exceeds 20.0 million board feet during any calendar 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 3.2.5.
[391-3-1-.02(6)(b)1(i) and 40 CFR 70.6(a)(3)(ii)(B)]
- 6.2.3 The Permittee shall, each month, calculate and record the twelve-month rolling total of the board feet of lumber dried in the drying kilns (ID Nos. CDK1 and CDK2), combined, using the monthly records required in Condition No. 6.2.2. A twelve- month rolling total shall be defined as the sum of the current month's total plus the totals for the previous eleven consecutive months.
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]