STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Weyerhaeuser NR Company, Philadelphia Facility
1016 Weyerhaeuser Road
Philadelphia, Neshoba County, Mississippi

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. § 7401 - 7671) and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Permit Issued: DEC 2 3 2019

Effective Date: As Specified Herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Krystal Rudolph

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: November 30, 2024 **Permit No.: 1920-00012**

5197 PER20130001

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SECTION 1. GENERAL CONDITIONS

1.1 The permittee must comply with all conditions of this permit. Any permit non-compliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(6)(a).)

1.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(6)(b).)

1.3 This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(6)(c).)

1.4 Prior to its expiration, this permit may be reopened in accordance with the provisions listed below.

(a) This permit shall be reopened and revised under any of the following circumstances:

(1) Additional applicable requirements under the Federal Act become applicable to a major Title V source with a remaining permit term of three (3) or more years. Such a re-opening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended.

(2) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

(3) The Permit Board or the EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.

(4) The Administrator or the Permit Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(b) Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall only affect those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings shall not be initiated before a notice of such intent is provided to the Title V source by the MDEQ at least thirty (30) days in advance of the date that the permit is to be reopened, except that the Permit Board may provide a shorter time period in the case of an emergency.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.G.)

1.5 The permittee shall furnish to the MDEQ within a reasonable time any information the MDEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the MDEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to the MDEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(6)(e).)

1.6 This permit does not convey any property rights of any sort, or any exclusive privilege.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(6)(d).)

1.7 The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(5).)

1.8 The permittee shall pay to the MDEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Mississippi Administrative Code, Title 11, Part 2, Chapter 6 – *Air Emissions Operating Permit Regulations for Purposes of Title V of the Federal Clean Air Act*.

(a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (*e.g.* air emission factors); or other approaches such as engineering calculations (*e.g.* estimating volatilization using published mathematical formulas) or best engineering judgments where such judgments are derived from process and/or emission data which supports the estimates of maximum actual emission.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A.(2).)

(b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).)

(c) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D.(2).)

(d) The fee shall be due September 1st of each year. By July 1st of each year, the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the MDEQ by the first payment date of September 1st. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D.)

(e) If in disagreement with the calculation or applicability of the Title V permit fee,

the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.C.)

1.9 No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(8).)

1.10 Any document required by this permit to be submitted to the MDEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.2.E.)

1.11 The permittee shall allow the MDEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to perform the following:

(a) Enter upon the permittee's premises where a Title V source is located, emissions-related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) As authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C.(2).)

1.12 Except as otherwise specified or limited herein, the permittee shall have necessary sampling ports and ease of accessibility for any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I.(1).)

1.13 Except as otherwise specified or limited herein, the permittee shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board for air pollution control equipment that was in existence prior to May 8, 1970.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I.(2).)

1.14 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F.(1).)

1.15 Nothing in this permit shall alter or affect the following:

(a) The provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;

(b) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

(c) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act; and

(d) The ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F.(2).)

1.16 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required pursuant to Section 112(r) of the Act to register such a plan.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.H.)

1.17 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the

completeness determination, the permittee fails to submit by the deadline specified in writing by the MDEQ any additional information identified as being needed to process the application.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.C.(2)., R. 6.4.B., and R. 6.2.A.(1)(c).)

1.18 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:

(a) The changes are not modifications under any provision of Title I of the Act;

(b) The changes do not exceed the emissions allowable under this permit;

(c) The permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such other timeframe as provided in other regulations for emergencies) and the notification includes:

(1) A brief description of the change(s);

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change;

(d) The permit shield shall not apply to any Section 502(b)(10) change.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.F.(1).)

1.19 Should the Executive Director of the MDEQ declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in Mississippi Administrative Code, Title 11, Part 2, Chapter 3 (*Regulations for the Prevention of Air Pollution Emergency Episodes*) for the level of emergency declared.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 3.)

1.20 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Mississippi Administrative Code, Title 11, Part 2, Chapter 2 – *Permit Regulations for the Construction and/or Operation of Air Emissions Equipment*", and may require modification of this permit in accordance with Mississippi Administrative Code, Title 11, Part 2, Chapter 6 – *Air*

Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act". Modification is defined as "*any physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted*". A physical change or change in the method of operation shall not include:

(a) Routine maintenance, repair, and replacement;

(b) Use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;

(c) Use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;

(d) Use of an alternative fuel or raw material by a stationary source which:

(1) The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I (or 40 CFR 51.166); or

(2) The source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Part 51, Subpart I (or 40 CFR 51.166).

(e) An increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I (or 40 CFR 51.166); or

(f) Any change in ownership of the stationary source.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.C.(15).)

1.21 Any change in ownership or operational control must be approved by the Permit Board.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.D(4).)

1.22 This permit is a Federally-approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit

the source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.B.(1).)

1.23 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvi-cultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance. Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or an Emergency Air Pollution Episode Alert imposed by the Executive Director of the MDEQ and must meet the following buffer zones.

(a) Open burning without a forced-draft air system must not occur within five hundred (500) yards of an occupied dwelling.

(b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within fifty (50) yards of an occupied dwelling.

(c) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.G.)

1.24 Except as otherwise specified herein, the permittee shall be subject to the following provision with respect to emergencies:

(a) Except as otherwise specified herein, an "*emergency*" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions

specified in (c) following are met.

(c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:

(1) An emergency occurred and that the permittee can identify the cause(s) of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

(4) The permittee submitted notice of the emergency to the MDEQ within two (2) working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.G.)

1.25 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, start-ups, and shutdowns.

(a) Upsets (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) For an upset, the Commission may pursue an enforcement action for noncompliance with an emission standard or other requirement of an applicable rule, regulation, or permit. In determining whether to pursue enforcement action, and/or the appropriate enforcement action to take, the Commission may consider whether the source has demonstrated through properly signed contemporaneous operating logs or other relevant evidence the following:

(i) An upset occurred and that the source can identify the cause(s) of the upset;

(ii) The source was at the time being properly operated;

(iii) During the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standard or other requirement of an applicable rule, regulation, or permit;

(iv) That within five (5) working days of the time the upset began, the source submitted a written report to the Department describing the upset, the steps taken to mitigate excess emissions or any other non-compliance, and the corrective actions taken and;

(v) That as soon as practicable but no later than twenty-four (24) hours of becoming aware of an upset that caused an immediate adverse impact to human health or the environment beyond the source boundary or caused a general nuisance to the public, the source provided notification to the Department.

(2) In any enforcement proceeding by the Commission, the source seeking to establish the occurrence of an upset has the burden of proof.

(3) This provision is in addition to any upset provision contained in any applicable requirement.

(4) These upset provisions apply only to enforcement actions by the Commission and are not intended to prohibit EPA or third party enforcement actions.

(b) Start-ups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) Start-ups and shutdowns are part of normal source operation. Emission limitations apply during start-ups and shutdowns unless source specific emission limitations or work practice standards for start-ups and shutdowns are defined by an applicable rule, regulation, or permit.

(2) Where the source is unable to comply with existing emission limitations established under the State Implementation Plan (SIP) and defined in this Mississippi Administrative Code, Title 11, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for start-ups and shutdowns. Source specific emission limitations or work practice standards established for start-ups and shutdowns are subject to the requirements prescribed in Mississippi Administrative Code, Title 11, Part 2, Rule 1.10.B.(2)(a) through (e).

(3) Where an upset as defined in Rule 1.2 occurs during start-up or shutdown, see the upset requirements above.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

1.26 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M, as adopted by reference in Mississippi Administrative Code, Title 11, Part 2, Rule 1.8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.8.)

1.27 Regarding compliance testing (if applicable):

(a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.

(b) Compliance testing will be performed at the expense of the permittee.

(c) Each emission sampling and analysis report shall include (but not be limited to) the following:

(1) Detailed description of testing procedures;

(2) Sample calculation(s);

(3) Results; and

(4) Comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.6.B.(3), (4), and (6).)

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

EMISSION POINT	DESCRIPTION
AA-000	Facility-Wide (Weyerhaeuser NR Company, Philadelphia Facility)
AA-031	Planer Trim Hog Cyclone
AA-032	Primary Planer Shavings Cyclone
AA-033	Fuel House – Green Fiber Cyclone [to be used as a back-up cyclone when both CDK fuel bin cyclones are down for maintenance]
AA-034	Green Chip Truck Bin Cyclone [conveys green lumber scrap generated at the sawmill area to a storage area for eventual truck loading]
AA-035	Haul Roads
AA-037	Electric-Powered Quality Assurance Lumber Kiln
AA.038	Continuous Direct-Fired Lumber Drying Kiln (CDK-5) [equipped with 35 MMBTU / Hour Wood Waste-Fired Grate Gasifier and Abort Stack]
AA-039	Continuous Direct-Fired Lumber Drying Kiln (CDK-6) [equipped with 35 MMBTU / Hour Wood Waste-Fired Grate Gasifier and Abort Stack]
AA-040	CDK-5 Fuel Bin Cyclone (CDKC-5) [conveys green sawdust generated at the sawmill area to the fuel silo for CDK-5]
AA-041	CDK-6 Fuel Bin Cyclone (CDKC-6) [conveys green sawdust generated at the sawmill area to the fuel silo for CDK-5]
AA-042	210 HP Diesel-Fired Emergency Fire Water Pump Engine [Heat Input Capacity: 1.5 MMBTU / Hour – manufactured in 2003]

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. FACILITY-WIDE EMISSION LIMITATIONS & STANDARDS

3.A.1 Except as otherwise specified or limited herein, the permittee shall not cause or allow the emission of smoke from a point source into the open air from any manufacturing or industrial process that exceeds forty percent (40%) opacity subject to the exceptions provided in Parts (a) and (b) of this condition:

(a) Start-up operations may produce emissions, which exceed 40% opacity for up to fifteen (15) minutes per startup in any one (1) hour and not to exceed three (3) start-ups per stack in any twenty-four (24) hour period.

(b) Emissions resulting from soot blowing operations (i.e. ash removal) shall be permitted provided such emissions do not exceed sixty percent (60%) opacity, and provided further that the aggregate duration of such emissions during any 24-hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any 1 hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.A.)

3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause or allow the discharge into the ambient air from any point source any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to the opacity limitation specified in Condition 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.B.)

B. EMISSION POINT SPECIFIC EMISSION LIMITATIONS & STANDARDS

Emission Point(s)	Applicable Requirement(s)	Condition Number	Pollutant(s) / Parameter(s)	Limit(s) / Standard(s)
AA-000	Federally Enforceable PSD Construction Permit Issued on March 17, 2005; Modified on May 22, 2008, February 13, 2009, and October 15, 2018 **(PSD BACT Limit)**	3.B.1	Lumber Throughput	275,000 MBF / Year (Rolling 12-Month Period)
	11 Miss. Admin. Code Pt. 2, R.1.3.F.(1).	3.B.2	PM	$E = 4.1\ (p^{0.67})$
AA-038 AA-039	40 CFR Part 63, Subpart DDDD – National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products 40 CFR 63.2231(a) and (b); Subpart DDDD	3.B.3	HAPs	Applicability
	11 Miss Admin. Code Pt. 2, R. 1.4.B.(1).	3.B.4	SO_2	500 ppm (by volume)
	Federally Enforceable Permit to Construct Issued on September 26, 2014	3.B.5	Fuel Restriction	Uncontaminated Wood Residue Only ≤ 10 Gallons of Diesel per Fuel Bed Start-Up
	Federally Enforceable PSD Construction Permit Issued on March 17, 2005; Modified on May 22, 2008, February 13, 2009, and October 15, 2018 **(PSD BACT Limit)**	3.B.6	VOCs (as WPP1)	4.52 Pounds / MBF 621.5 tpy (Rolling 12-Month)
	Federally Enforceable PSD Construction Permit Issued on October 15, 2018 **(PSD BACT Limit)**	3.B.7	Final Moisture Content	≥ 12%
AA-042	40 CFR Part 63, Subpart ZZZZ – National Emission Standard for Stationary Reciprocating Internal Combustion Engines 40 CFR 63.6585(a) and (b); Subpart ZZZZ	3.B.8	HAPs	Applicability

Emission Point(s)	Applicable Requirement(s)	Condition Number	Pollutant(s) / Parameter(s)	Limit(s) / Standard(s)
AA-042	40 CFR 63.6640(f)(1 – 3); Subpart ZZZZ	3.B.9	HAPs	100 Hours of Non-Emergency Operations per Calendar Year
	11 Miss. Admin. Code Pt. 2, R. 1.3.D.(1)(a).	3.B.10	PM	0.6 Pounds per MMBTU / Hour
	11 Miss. Admin. Code Pt. 2, R. 1.4.A.(1).	3.B.11	SO_2	4.8 Pounds / MMBTU

3.B.1 For Emission Point AA-000 (Facility-Wide), the permittee shall limit the throughput of lumber through any specific process area (i.e. the sawmill / green trimmer area, the collective direct-fired lumber drying kilns, and the planer mill area) to no more than 275,000 thousand board feet (MBF) per year based on a rolling 12-month period.

(Ref.: Federally Enforceable PSD Construction Permit Issued on March 17, 2005; Modified on May 22, 2008, February 13, 2009, and October 15, 2018 – PSD BACT Limit)

3.B.2 For Emission Point AA-000 (Facility-Wide), except as otherwise specified herein, the permittee shall not cause or allow the emission of particulate matter (PM) in total quantities in any one (1) hour from any manufacturing process (which includes any associated stacks, vents, outlets, or combination thereof) to exceed the amount determined by the relationship:

$$E = 4.1\ (p^{0.67})$$

Where "*E*" is the emission rate in pounds per hour and "*p*" is the process weight input rate in tons per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.F.(1).)

3.B.3 Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns) are subject to and shall comply with the applicable requirements found in 40 CFR Part 63, Subpart DDDD – National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products.

(Ref.: 40 CFR 63.2231(a) and (b); Subpart DDDD)

3.B.4 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), except as otherwise provided herein, the permittee shall not cause the emission of gas containing sulfur oxides (measured as sulfur dioxide or SO_2) from any process equipment in excess of five hundred (500) parts per million by volume (ppm_v).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.B.(1).)

3.B.5 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall only utilize uncontaminated wood residue as a fuel source. For the purpose of this permit, "*wood residue*" is defined as sawdust, bark, green chips, and planer shavings generated from the processing of harvested timber and may be purchased from outside sources. However, the permittee is authorized to utilize no more than ten (10) gallons of diesel per start-up procedure to ignite the gasifier fuel bed.

(Ref.: Federally Enforceable Permit to Construct Issued on September 26, 2014)

3.B.6 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall limit the emission of volatile organic compounds (VOCs) from each lumber drying kiln to no more than 4.52 pounds per thousand board feet (MBF) as determined by Wood Products Protocol 1 (WPP1).

Additionally, VOC emissions from the combined lumber drying kilns shall not exceed 621.5 tons per year (tpy) based on a rolling 12-month period.

(Ref.: Federally Enforceable PSD Construction Permit Issued on March 17, 2005; Modified on May 22, 2008, February 13, 2009, and October 15, 2018 – PSD BACT Limit)

3.B.7 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall limit the final moisture content of dried lumber produced within each lumber drying kiln to 12% or greater.

(Ref.: Federally Enforceable PSD Construction Permit Issued on October 15, 2018 – PSD BACT Limit)

3.B.8 Emission Point AA-042 (Emergency Fire Water Pump Engine) is subject to and shall comply with the applicable requirements found in 40 CFR Part 63, Subpart ZZZZ – National Emission Standard for Stationary Reciprocating Internal Combustion Engines.

(Ref.: 40 CFR 63.6585(a) and (b); Subpart ZZZZ)

3.B.9 For Emission Point AA-042 (Emergency Fire Water Pump Engine), any operation of the engine for purposes other than emergency operation, maintenance and testing, and operation in non-emergency situations for fifty (50) hours per year is prohibited. If the engine is not operated in accordance with Parts (a) through (c) of this condition, the engine will not be considered an emergency engine under the referenced regulation and shall meet all requirements for the corresponding non-emergency engine:

(a) There is no time limit on the use of the engine in emergency situations.

(b) The permittee may operate an engine for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company accompanied with the engine. Maintenance checks and readiness testing of an engine is limited to a maximum of one hundred (100) hours per calendar year. The permittee may petition the MDEQ for approval of additional hours to be used for maintenance checks and readiness testing. However, a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of the engine beyond 100 hours per calendar year.

(c) The permittee may operate the engine for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 63.6640(f)(1 – 3); Subpart ZZZZ)

3.B.10 For Emission Point AA-042 (Emergency Fire Water Pump Engine), the maximum permissible emission of ash and / or particulate matter (PM) from the engine shall not exceed 0.60 pounds per MMBTU per hour heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D.(1)(a).)

3.B.11 For Emission Point AA-042 (Emergency Fire Water Pump Engine), the maximum discharge of sulfur oxides from each the engine shall not exceed 4.8 pounds (measured as sulfur dioxide or SO_2) per MMBTU heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A.(1).)

C. INSIGNIFICANT / TRIVIAL ACTIVITY EMISSION LIMITATIONS & STANDARDS

Applicable Requirement(s)	Condition Number(s)	Pollutant(s) / Parameter(s)	Limit(s) / Standard(s)
11 Miss. Admin. Code Pt. 2, R. 1.3.D.(1)(a).	3.C.1	PM	0.6 pounds / MMBTU
11 Miss. Admin. Code Pt. 2, R. 1.4.A.(1).	3.C.2	SO_2	4.8 pounds / MMBTU

3.C.1 The maximum permissible emission of ash and/or particulate matter (PM) from fossil fuel burning emission sources of less than ten (10) million BTU (MMBTU) per hour heat input shall not exceed 0.6 pounds per MMBTU per hour heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).)

3.C.2 The maximum discharge of sulfur oxides from any fuel burning emission source in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide or SO_2) per million BTU heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

D. WORK PRACTICE STANDARDS

Emission Point(s)	Applicable Requirement(s)	Condition Number	Pollutant(s) / Parameter(s)	Limit(s) / Standard(s)
AA-038 AA-039	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a).	3.D.1	VOCs	Implement and Adhere to Work Practice Standards Plan
AA-042	40 CFR 63.6602 – Table 2c, Item 1 and 40 CFR 63.6625(i); Subpart ZZZZ	3.D.1	HAPs	Conduct Routine Maintenance
	40 CFR 63.6625(e)(2); Subpart ZZZZ	3.D.2		Operate in Accordance with Manufacturer's Instructions / Site-Specific Maintenance Plan
	40 CFR 63.6625(h); Subpart ZZZZ	3.D.3		Minimize Idling During Start-Up ≤ 30 Minutes for a Start-Up Period

3.D.1 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall perform and record inspections / preventative maintenance actions on the lumber drying kilns in accordance with the specifications outlined in the Work Practice Standards Plan found in Appendix B of this permit. The plan (in its most current version) shall be maintained on-site and made readily available for review by MDEQ personnel.

Additionally, if any problem is noted during an inspection, the permittee shall perform and record the necessary maintenance to ensure operation of a kiln as originally designed.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a).)

3.D.2 For Emission Point AA-042 (Emergency Fire Water Pump Engine), except during periods of start-up, the permittee shall meet the following maintenance requirements:

(a) Change the oil and filter every five hundred (500) hours of operation or annually (whichever comes first);

(b) Inspect the air cleaner every one thousand (1,000) hours of operation or annually (whichever comes first), and replace as necessary; and

(c) Inspect all hoses and belts every 500 hours of operation or annually (whichever comes first), and replace as necessary.

The permittee has the option of utilizing an oil analysis program in order to extend the oil change requirement specified in Part (a) of this condition in accordance with the

following provisions:

(d) The oil analysis shall be performed at the same frequency specified for changing the oil as outlined in Part (a) of this condition;

(e) The analysis program shall (at a minimum) analyze the Total Base Number, viscosity, and percent water content. The condemning limits for each noted parameter are as follows:

(1) Total Base Number is less than thirty percent (30%) of the Total Base Number of the oil when new;

(2) Viscosity of the oil has changed by more than twenty percent (20%) from the viscosity of the oil when new; and

(3) Percent water content (by volume) is greater than 0.5.

If none of the condemning limits are exceeded, the permittee is not required to change the oil. However, if any of the limits are exceeded, the permittee shall change the oil within two (2) business days of receiving the results of the analysis. If the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within 2 business days or before commencing operation (whichever is later).

The permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. Additionally, the analysis program shall be part of the maintenance plan for the engine.

If an engine is operating during an emergency situation and it is not possible to perform the oil change on the required schedule or if performing the oil change on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the oil change can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The oil change should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. The permittee shall report any failure to perform the oil change on the schedule required and the Federal, State, or local law under which the risk was deemed unacceptable.

(Ref.: 40 CFR 63.6602 – Table 2c, Item 1 and 63.6625(i); Subpart ZZZZ)

3.D.3 For Emission Point AA-042 (Emergency Fire Water Pump Engine), the permittee shall comply with one of the following options:

(a) Operate and maintain the engine and the after-treatment control device (if any) according to the manufacturer's emission-related written instructions; or

(b) Develop a site-specific maintenance plan, which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(Ref.: 40 CFR 63.6625(e)(2); Subpart ZZZZ)

3.D.4 For Emission Point AA-042 (Emergency Fire Water Pump Engine), the permittee shall minimize the time spent at idle during engine start-up and minimize the start-up time to a period needed for appropriate and safe loading of the engine, not to exceed thirty (30) minutes, after which time the non-startup emission limitations apply.

(Ref.: 40 CFR 63.6625(h); Subpart ZZZZ)

SECTION 4. COMPLIANCE SCHEDULE

4.1 Unless otherwise specified herein, the permittee shall be in compliance with all requirements contained herein upon issuance of this permit.

4.2 Except as otherwise specified herein, the permittee shall submit to the Permit Board and to the Administrator of EPA Region IV a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, by January 31st for the preceding calendar year. Each compliance certification shall include the following:

(a) The identification of each term or condition of the permit that is the basis of the certification;

(b) The compliance status;

(c) Whether compliance was continuous or intermittent;

(d) The method(s) used for determining the compliance status of the source, currently and over the applicable reporting period; and

(e) Such other facts as may be specified as pertinent in specific conditions elsewhere in this permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.C.(5)(a), (c), and (d).)

SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

A. GENERAL MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

5.A.1 The permittee shall install, maintain, and operate equipment and/or institute procedures as necessary to perform the monitoring and recordkeeping specified below.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3).)

5.A.2 In addition to the recordkeeping specified below, the permittee shall include with all records of required monitoring information the following:

(a) The date, place as defined in the permit, and time of sampling or measurements;

(b) The date(s) analyses were performed;

(c) The company or entity that performed the analyses;

(d) The analytical techniques or methods used;

(e) The results of such analyses; and

(f) The operating conditions existing at the time of sampling or measurement.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(b)(1).)

5.A.3 Except where a longer duration is specified in an applicable requirement, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(b)(2).)

5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31st and January 31st for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with Mississippi Administrative Code, Title 11, Part 2, Chapter 6, Rule 6.2.E.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).)

5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from

permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) working days of the time the deviation began.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(2).)

5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements, if applicable. All test methods shall be those versions or their equivalents approved by the DEQ and the EPA.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3).)

5.A.7 The permittee shall maintain records of any alterations, additions, or changes in equipment or operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3).)

B. SPECIFIC MONITORING AND RECORDKEEPING REQUIREMENTS

Emission Point(s)	Applicable Requirement(s)	Condition Number	Pollutant(s) / Parameter(s) Monitored	Monitoring / Recordkeeping Requirement(s)
AA-031 through AA-034 AA-040 AA-041	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).	5.B.1	Opacity PM	Conduct Monthly Visible Emissions Observations
		5.B.2	PM	Conduct Monthly Inspections
AA-038 AA-039	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).	5.B.4	Dried Lumber Throughput	Monitor Throughput of Dried Lumber from Combined Kilns (Monthly and Rolling 12-Month Period)
		5.B.5	Final Moisture Content	Monitor Moisture Content of Dried Lumber Processed in Planer Mill Area (Rolling 12-Month Average)
		5.B.6	Hours of Duration	Monitor and Record Date, Time, and Duration of Start-Up and Shutdown Periods Calculate Total Duration of All Start-up and Shutdown Periods (Rolling 12-Month Period)
AA-042	40 CFR 63.6625(f); Subpart ZZZZ 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).	5.B.7	Hours of Operation	Operate and Maintain a Non-Resettable Hour Meter
	40 CFR 63.6655(a)(2) and (5), (d), and (e); Subpart ZZZZ	5.B.8	HAPs	Maintain Maintenance-Related Records
	40 CFR 63.6655(f); Subpart ZZZZ 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).	5.B.9		Monitor Hours of Operation (Emergency and Non-Emergency)

5.B.1 For Emission Points AA-031 through AA-034, AA-040, and AA-041 (Facility-Wide Cyclones), the permittee shall have personnel certified in Visible Emission Evaluations (VEE) under EPA Test Method 9 (i.e. "Method 9") perform and record monthly visible emissions observations in accordance with EPA Test Method 22 on the exhaust of each cyclone during daylight hours and during representative operating conditions for each cyclone.

If visible emissions are detected from a cyclone during an observation period, a VEE

shall then be performed and recorded in accordance with Method 9. If the visible emissions after a period of six (6) consecutive minutes are determined to be less than or equal to twenty percent (20%) opacity, the permittee may discontinue the VEE. In the event that a VEE is required but cannot be conducted on a denoted cyclone, the permittee shall record a written explanation as to why it was not possible to perform the VEE.

The permittee shall maintain documents pertaining to all visual observations, the nature and cause of any visible emissions, any corrective action(s) taken to prevent or minimize emissions, and the date / time when visual emission observations were conducted.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).)

5.B.2 For Emission Points AA-031 through AA-034, AA-040, and AA-041 (Cyclones), the permittee shall perform and record monthly inspections to ensure that each cyclone is operating as originally designed. An inspection shall evaluate (at a minimum) the following components:

(a) Blowers;

(b) Air lock valves;

(c) Fans; and

(d) Any piping associated with a cyclone.

If any problem(s) is noted during an inspection, the permittee shall conduct the necessary maintenance to ensure operation of the cyclone as originally designed.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).)

5.B.4 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall monitor and record the throughput of lumber dried by the collective lumber drying kilns in thousand board feet (MBF) both monthly and on a rolling 12-month period.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).)

5.B.5 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall demonstrate compliance with the moisture content limit specified in Condition 3.B.7 by monitoring and recording the moisture content of dried lumber processed through the planer mill area based on a rolling 12-month average.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).)

5.B.6 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall monitor and record the date, time, and duration of every start-up and shutdown period experienced by each kiln (in which emissions are diverted to the corresponding abort stack). Additionally, the permittee shall calculate and record the total duration of all start-up and shutdown periods for each kiln in hours per year based on a rolling 12-month period.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).)

5.B.7 For Emission Point AA-042 (Emergency Fire Water Pump Engine), the permittee shall operate and maintain a non-resettable hour meter for the engine.

(Ref.: 40 CFR 63.6625(f); Subpart ZZZZ)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).)

5.B.8 For Emission Point AA-042 (Emergency Fire Water Pump Engine), the permittee shall maintain the following documentation:

(a) Records of all maintenance conducted to demonstrate that the engine is being operated and maintained in accordance with the provisions outlined in Condition 3.D.1;

(b) Records that detail each occurrence and duration of a malfunction of the engine in addition to the action(s) taken during these periods of malfunction to minimize emissions, including corrective actions to restore the affected source to its usual manner of operation;

(c) A copy of either the manufacturer's emission-related operation and maintenance instructions for the affected source or the site-specific maintenance plan developed for the engine as outlined in Condition 3.D.2(b).

(Ref.: 40 CFR 63.6655(a)(2) and (5), (d), and (e); Subpart ZZZZ)

5.B.9 For Emission Point AA-042 (Emergency Fire Water Pump Engine), the permittee shall monitor and record (via a non-resettable hour meter) the hours of operation monthly for each emergency engine during the respective occasions of emergency and non-emergency service. The permittee shall also detail what classified each operational occasion either as an emergency or a non-emergency.

(Ref: 40 CFR 63.6655(f); Subpart ZZZZ)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).)

C. SPECIFIC REPORTING REQUIREMENTS

Emission Point(s)	Applicable Requirement(s)	Condition Number	Pollutant(s) / Parameter(s) Monitored	Reporting Requirement(s)
AA-031 through AA-034 AA-040 AA-041	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).	5.C.1	Opacity PM	Submit Semi-Annual Report of Visible Emission Evaluation Information
		5.C.2	PM	Submit Semi-Annual Report of Cyclone Non-Operational Occurrences
AA-038 AA-039	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).	5.C.3	Dried Lumber Throughput	Submit Semi-Annual Report of Dried Lumber Throughput (from Combined Kilns)
		5.C.4	VOCs	Submit Semi-Annual Notification of Amendment to Work Practice Standards Plan
	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).	5.C.5	VOCs	Submit Semi-Annual Report on Kilns not Operating in Accordance with Standard / Specifications
	11 Miss. Admin. Code Pt. 2, R. 2.2.B.(11).	5.C.6	Final Moisture Content	Submit Annual Certification for Final Moisture Content (from Combined Kilns)
AA-042	11 Miss. Admin. Code Pt. 2, R. 2.2.B.(11).	5.C.7	Hours of Operation	Submit Semi-Annual Report on Hours of Operation (Non-Emergency and Emergency)

5.C.1 For Emission Points AA-031 through AA-034, AA-040, and AA-041 (Facility-Wide Cyclones), the permittee shall submit a semi-annual report in accordance with Condition 5.A.4 that details (at a minimum) the following information:

(a) Any occurrence when a VEE is performed;

(b) The issue(s) that prompted the VEE;

(c) Any action(s) taken to correct the issue(s); and

(d) Any occurrence when a VEE is required but not performed (include the corresponding explanation for why the VEE was not performed).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).)

5.C.2 For Emission Points AA-031 through AA-034, AA-040, and AA-041 (Facility-Wide Cyclones), the permittee shall submit a semi-annual report in accordance with

Condition 5.A.4 that details any occurrence (and its corresponding duration) of a cyclone malfunctioning and/or becoming non-operational for the preceding six-month period. Additionally, the report shall outline any maintenance action(s) performed to restore the cyclone(s) to its usual manner of operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).)

5.C.3 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall submit a semi-annual report in accordance with Condition 5.A.4 that details the total throughput of lumber dried from the combined lumber drying kilns in thousand board feet (MBF) both monthly and on a rolling 12-month period.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).)

5.C.4 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall submit a semi-annual notification in accordance with Condition 5.A.4 that summarizes any revision(s) made to the Work Practice Standards Plan found in Appendix B of this permit. If an amendment is made to the plan in any six-month period, the permittee shall include the revision(s) within the corresponding semi-annual monitoring report.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).)

5.C.5 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall submit a semi-annual report in accordance with Condition 5.A.4 that details any occurrence (and its corresponding duration) of a kiln not operating in accordance with the established work practice standards and/or the manufacturer's specifications.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).)

5.C.6 For Emission Points AA-038 and AA-039 (Continuous Direct-Fired Kilns), the permittee shall submit an annual certification acknowledging if dried lumber processed through the planer mill area complied with the final target moisture content limit of 12% or greater no later than January 31st of each calendar year for the preceding year.

If the certification denotes non-compliance with the referenced final target moisture content limit, the permittee shall include with the annual certification an additional report that details the number of excursions experienced within the calendar year and the duration of each excursion experienced.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(11).)

5.C.7 For Emission Point AA-042 (Emergency Fire Water Pump Engine), the permittee shall submit a semi-annual report in accordance with Condition 5.A.4 that details the hours

of operation for the engine. The report shall document how many hours are spent for emergency operation, what classified the operation as an emergency situation, how many hours are spent for non-emergency operation, and the circumstance(s) for non-emergency operation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

NO ALTERNATIVE OPERATING SCENARIOS HAVE BEEN PERMITTED.

SECTION 7. TITLE VI REQUIREMENTS

The following are applicable or potentially applicable requirements originating from Title VI of the Clean Air Act – Stratospheric Ozone Protection. The full text of the referenced regulations may be found on-line at http://www.ecfr.gov/ under Title 40, or DEQ shall provide a copy upon request from the permittee.

7.1 If the permittee produces, transforms, destroys, imports or exports a controlled substance or imports or exports a controlled product, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart A – Production and Consumption Controls.

7.2 If the permittee performs service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart B – Servicing of Motor Vehicle Air Conditioners.

7.3 The permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart E – The Labeling of Products Using Ozone-Depleting Substances, for the following containers and products:

(a) All containers in which a class I or class II substance is stored or transported;

(b) All products containing a class I substance; and

(c) All products directly manufactured with a process that uses a class I substance, unless otherwise exempted by this subpart or, unless EPA determines for a particular product that there are no substitute products or manufacturing processes for such product that do not rely on the use of a class I substance, that reduce overall risk to human health and the environment, and that are currently or potentially available. If the EPA makes such a determination for a particular product, then the requirements of this subpart are effective for such product no later than January 1, 2015.

7.4 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart F – Recycling and Emissions Reduction:

(a) Servicing, maintaining, or repairing appliances;

(b) Disposing of appliances, including small appliances and motor vehicle air conditioners; or

(c) Refrigerant reclaimers, technician certifying programs, appliance owners and

operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, as well as persons selling, offering for sale, and/or purchasing class I, class II, or non-exempt substitute refrigerants.

7.5 The permittee shall be allowed to switch from any ozone-depleting substance to any acceptable alternative that is listed in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G – Significant New Alternatives Policy Program. The permittee shall also comply with any use conditions for the acceptable alternative substance.

7.6 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart H – Halon Emissions Reduction:

(a) Any person testing, servicing, maintaining, repairing, or disposing of equipment that contains halons or using such equipment during technician training;

(b) Any person disposing of halons;

(c) Manufacturers of halon blends; or

(d) Organizations that employ technicians who service halon-containing equipment.

APPENDIX A

LIST OF ABBREVIATIONS USED IN THIS PERMIT

11 Miss. Admin. Code Pt. 2, Ch. 1.	Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants
11 Miss. Admin. Code Pt. 2, Ch. 2.	Permit Regulations for the Construction and/or Operation of Air Emissions Equipment
11 Miss. Admin. Code Pt. 2, Ch. 3.	Regulations for the Prevention of Air Pollution Emergency Episodes
11 Miss. Admin. Code Pt. 2, Ch. 4.	Ambient Air Quality Standards
11 Miss. Admin. Code Pt. 2, Ch. 5.	Regulations for the Prevention of Significant Deterioration of Air Quality
11 Miss. Admin. Code Pt. 2, Ch. 6.	Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act
11 Miss. Admin. Code Pt. 2, Ch. 7.	Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act
BACT	Best Available Control Technology
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
DEQ	Mississippi Department of Environmental Quality
EPA	United States Environmental Protection Agency
gr/dscf	Grains Per Dry Standard Cubic Foot
HP	Horsepower
HAP	Hazardous Air Pollutant
lbs/hr	Pounds per Hour
M or K	Thousand
MACT	Maximum Achievable Control Technology
MM	Million
MMBTUH	Million British Thermal Units per Hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61 or National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 CFR 63
NMVOC	Non-Methane Volatile Organic Compounds
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 μm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration, 40 CFR 52
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOC	Volatile Organic Compound

APPENDIX B

WORK PRACTICE STANDARDS PLAN

SECTION 1: INTRODUCTION

The Mississippi Department of Environmental Quality (MDEQ) issued permit number 1920-00012 on October 10, 2018, authorizing construction of a Continuous Direct-Fired Kiln (CDK) with a 35 MMBTU / Hour gasifier burner. This permit was issued under the Prevention of Significant Deterioration (PSD) regulations and required Best Available Control Technology (BACT) review for Volatile Organic Compounds (VOC). It was determined that the addition of pollution control equipment to the CDK was infeasible and BACT was determined to be proper maintenance and operating procedures.

The CDK emission rate achievable under good operating and maintenance practices was determined to be 4.52 lb-VOC / MBF expressed as WPP1 under the "Wood Products Protocol". Compliance with this emission rate is presumed as long as the good operating and maintenance practices are carried out.

SECTION 2: PROPER MAINTENANCE

2.1 Maintenance Required By Permit

The following maintenance procedures are required to be conducted by permit condition:

- Conducting walk-around inspections;
- Confirming proper wet-bulb operation;
- Conducting entrance / exit baffle inspections;
- Greasing the kiln cart wheels and fan shaft bearings;
- Checking hydraulic oil levels;
- Calibrating moisture content equipment; and
- Calibrating temperature probe equipment.

2.2 Additional Maintenance to be Conducted

Maintenance inspection items are included as attachment Worksheet 1. This worksheet contains the items in the previous section and also monitors the following:

- Semi-annual check for leaks in kiln pipework;
- Semi-annual checks of motor mount bolts and taper lock bolts;
- Annual inspection of controller cabinet; and
- Annual inspection of all sensors.

The previously listed maintenance items have been identified to minimize VOC emissions. In

addition to these items, Weyerhaeuser maintains a preventative maintenance tracking system which tracks maintenance conducted as recommended by the manufacturer as well as items identified by Weyerhaeuser to prevent hazards and maintain efficient operation.

SECTION 3: PROPER OPERATING PROCEDURES

The facility is required to develop a site-specific plan for operation and maintenance by the following excerpted permit condition:

"FOR EMISSION POINTS AA-038 AND AA-039, WITHIN SIXTY (60) DAYS UPON ISSUANCE OF THIS PERMIT, THE PERMITTEE SHALL DEVELOP AN INITIAL PLAN THAT ESTABLISHES WORK PRACTICE STANDARDS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS FOR CONTINUOUS DIRECT-FIRED KILN OPERATIONS."

The majority of VOC emitted by the lumber kilns are a result of compounds being released from the wood during the drying process (compared to a result of combustion). VOC emissions from drying releases depend on a number of factors, including the type of wood being dried, the size of the wood, the season of the year, kiln operating conditions, and the original and final moisture contents of the wood. The main type of VOC emitted from the wood is in the form of terpenes, primarily alpha-pinene, from southern yellow pine.

Proper operation of the kiln is necessary to maintain product quality and profitability, and also helps to minimize VOC emissions during the drying process. Over drying is known to be a significant factor contributing to excess VOC emissions, and is also a major factor contributing to off-spec and reduced quality lumber production from the kiln. To control and optimize the drying process, the facility employs state of the art kiln management software programs with the associated sensors and instrumentation. The kiln is operated in accordance with manufacturers recommendations.

Set point information provided to the management system includes push timing, push distance, kiln dry bulb temperature, kiln wet bulb temperature, and desired lumber moisture content. One or more moisture sensors are inserted in each pack of lumber prior to entering the kiln. Lumber packs of 16-inch length will contain 3 or 4 sensors while 8-foot packs will have 1 or 2 sensors. As the lumber travels through the kiln, adjustments are automatically made to the push distance, to maintain the desired drying profile and to reach the desired final moisture content.

The kiln control system records and stores the measured operating parameters during each kiln operating cycle. Reports are generated which allow for refinement and optimization of operations when evaluating historical kiln operating parameters in relation the moisture content of the feed and product lumber.

The following is a discussion of specific operating parameters that are expected to directly impact the VOC emissions from the kiln, and how they are controlled to minimize emissions:

- *Kiln Temperature* – To avoid the potential for over-drying, the kiln dry bulb set point is the minimum temperature (based on operating results) that results in adequate moisture removal to meet product specifications while minimizing re-dry requirements. Temperature control is accomplished through regulation of the heat input from the fuel combustor. To facilitate

operation at minimum kiln temperatures, kiln components are maintained to provide for uniform temperatures and airflow throughout the kiln (baffles, fans, vents, kiln controls, etc). Periodically, as practical, the air flow direction in the kiln is reversed to improve uniformity of drying and reduce over-drying. In addition, each stack of lumber is carefully prepared using proper spacer stick placement to provide for adequate air flow throughout the charge.

- *Lumber Moisture Content* – As previously stated, it is not desirable to reduce the lumber moisture content below the product specification, since it would be detrimental to product quality and also increases VOC emissions. Therefore, the target lumber moisture content is set at the highest value possible that will not result in an unacceptable re-dry rate when considering industry lumber grade requirements and/or customer required moisture content. Moisture sensors located in each pack of lumber provide feedback to the kiln control system during the drying process, so that real time adjustments are made as necessary to the push distance in order to reach the desired moisture content without over-drying.

  As practical, the facility strives to maintain a uniform moisture content in the kiln feed lumber. However, in the event that the charge lumber contains some partially dried material, the kiln control system allows the operator to enter a factor based on the fraction of partially dry lumber in the charge, which will automatically adjust the push distance to compensate for the composition of the charge.

- *Lumber Push Rate* – To minimize kiln VOC emissions, it is desirable to maintain the lumber at elevated temperatures for only the time period necessary to reduce the moisture content of the charge to the desired level. The time the lumber is in the kiln and at elevated temperatures is determined by the frequency of pushing, and the distance that the lumber is pushed during each pushing event. The control system is programmed with push intervals and push distances that have been found from experience to be suitable for the type and quantity of lumber being dried. The kiln operating program will automatically adjust the push distance during the drying process as needed, based on the feedback from moisture sensors placed in each lumber pack. If the lumber is drying faster than the expected drying profile, the push distance is increased as necessary to avoid potential over-drying.

Weyerhaeuser proposes to monitor the moisture content of the dried lumber, as summarized below, on a monthly basis at the planer mill. An excursion will be defined as a 12-month rolling average moisture content below 12% mc. The monthly moisture content will be recorded in the operating record maintained by planer mill operations.

- *Monitored Parameter*: Lumber moisture content
- *Monitored Frequency*: Daily
- *Averaging Period*: 12-month rolling average
- *Excursion Level*: 12% moisture content
- *Records*: Production database maintained by planer mill operations

Worksheet 1
Routine Maintenance Checklist

CDK Maintenance Inspection
Weyerheauser Philadelphia, Mississippi
Routine Maintenance Checklist

Date:							
Inspector:							
Item Description	(Y/N)	(Y/N)	(Y/N)	(Y/N)	(Y/N)	(Y/N)	
Monthly Observations							
Conduct a walk around inspection, cleaning debris from around kiln and pusher tracks.							
Conduct entrance / exit baffle inspections							
Confirm proper wet-bulb operation							
The wet bulb is draining correctly and is not overflowing.							
Grease kiln cart wheels.							
Grease fan shaft bearings.							
Check all hydraulic oil levels							
Semi-Annual, Last Inspection Date:							Last Inspection Date
Check for leaks in the kiln pipework.							
check and retighten motor mount bolts and taper lock bolts							
Annual							Last Inspection Date
Check the calibration of moisture content equipment.							
Inspect controller cabinet for dust and small debris;							
Inspect all sensors for proper operation;							
Check temperature probe calibration.							