STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

International Paper Company, Vicksburg Mill
3737 Highway 3 North
Redwood, Mississippi
Warren County

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: October 5, 2021

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: September 30, 2026 **Permit No.: 2780-00015**

Modified: March 19, 2024

1585 PER20230001

TABLE OF CONTENTS

SECTION 1. GENERAL CONDITIONS

1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance 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 3 or more years. Such a reopening shall be completed no later than 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 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 DEQ at least 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 DEQ within a reasonable time any information the DEQ 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 DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ 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 DEQ 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 Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.

(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 1 of each year. By July 1 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 DEQ by the first payment date of September 1. 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 DEQ 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 DEQ, 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 or 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.

(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 DEQ 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 time frame 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 Mississippi Department of Environmental Quality 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 11 Miss. Admin. Code Pt. 2, Ch. 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 Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2., "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment," and may require modification of this permit in accordance with Regulations 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." Modification is defined as [a]ny 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 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, silvicultural 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

Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.

(a) Open burning without a forced-draft air system must not occur within 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 50 yards of an occupied dwelling.

(c) Burning must not occur within 500 yards of commercial airport property, private airfields, 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 DEQ within 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, startups, 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 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 noncompliance, and the corrective actions taken and;

(v) That as soon as practicable but no later than 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) Startups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) Startups and shutdowns are part of normal source operation. Emission limitations apply during startups and shutdowns unless source specific emission limitations or work practice standards for startups 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 regulation, 11 Mississippi Administrative Code, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for startups and shutdowns. Source specific emission limitations or work practice standards established for startups and shutdowns are subject to the requirements prescribed in 11 Miss. Admin. Code Pt. 2, R. 1.10.B(2)(a) through (e).

(3) Where an upset as defined in Rule 1.2 occurs during startup 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 Regulation 11 Miss Admin. Code Pt. 2, R. 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.)

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
AA-000	Facility-wide Paper Mill emissions which includes the paper machine and related equipment
AA-001	Softwood digester and associated equipment emissions routed to the low volume, high concentration (LVHC) system, which is controlled in the lime kiln (AA-003) or power boiler (AA-006).
AA-003	300 tons CaO/day Lime Kiln equipped with a 100 MMBtu/hr natural gas, fuel oil, used oil, and petroleum coke-fired burner and a Venturi scrubber for control of particulate matter. The lime kiln is the primary control device for LVHC and non-condensable gases (NCGs) collected from throughout the mill.
AA-005	990 MMBtu/hr black liquor solids (BLS) (or 82.7 ton BLS/hr), fuel oil, and natural gas-fired recovery boiler equipped with an electrostatic precipitator for control of particulate matter
AA-006	870 MMBtu/hr power boiler burning wood waste, No. 6 fuel oil, natural gas, cottonseed, tire derived fuel, used oil, and soybean seed (bark) and equipped with low NO_x burners and overfire to control NO_x emissions and a multiclone in series with a Venturi scrubber to control particulate matter. The boiler is the primary control device for the destruction of high volume, low concentration (HVLC) gases and the backup control device for the LVHC and NCG gases controlled by AA-003.
AA-007	Smelt dissolving tank equipped with a scrubber for control of particulate matter
AA-009	Lime slaker equipped with a scrubber for control of particulate matter
AA-010	99 MMBtu/hr (maximum) natural gas-fired temporary Package Boiler No. 3
AA-011	99 MMBtu/hr (maximum) natural gas-fired temporary Package Boiler No. 4
AA-012	Purchased chip rechipper equipped with a cyclone for control of particulate matter
AA-013	Bark pile sawdust cyclone, sawdust feeder, and blower
AA-014	No. 1 Manufactured Chip Rechipper Blowline Cyclone for control of particulate matter
AA-015	No. 2 Manufactured Chip Rechipper Blowline Cyclone for control of particulate matter
AA-016	Woodyard fugitive emissions which includes emissions from the debarking drum, screen rejects chipper, log chipper, Nos. 1 and 2 screen reject chipper, storage and handling areas, and bark and chip piles
AA-017	Pulp Mill emissions that are not captured by either the HVLC or LVHC systems. Includes emissions from the pulp mill, HD tanks, and LD tanks
AA-019	Black Liquor System which includes emissions from the black liquor oxidation tank, liquor tanks, and tanks associated with the soap system

Emission Point	Description
AA-020	Recausticizing Area which includes emissions from the three (3) causticizers, green liquor clarifier, two (2) green liquor storage tanks, white liquor clarifier, two (2) white liquor storage tanks, lime mud washing, and lime storage and handling
AA-021	Crude Tall Oil (CTO) Plant packed bed scrubber which controls emissions from the tall oil reactor, CTO wet tank, CTO storage tank, decant reject tank, CTO holding tank, and brine receiver
AA-033	Main foul condensate collection tank and decanter foul condensate collection tank emissions that are routed to the LVHC system and are controlled in the lime kiln (AA-003) or power boiler (AA-006). Condensates are routed to the aerated stabilization basin (AA-036)
AA-034	Three (3) brown stock washers: primary, secondary, and hardwood. Emissions are collected by the HVLC system and routed to the power boiler (AA-006) for control.
AA-036	Aerated stabilization basin (ASB)
AA-037	Hardwood digester emissions from the blow tank are collected by the LVHC system and routed to the lime kiln (AA-003) or power boiler (AA-006) for control. This is a closed vent system and all emissions are accounted for in the permitted control devices.
AA-038	Multiple effect evaporator system that includes LVHC emissions which are routed to the lime kiln (AA-003) or power boiler (AA-006) for control. This is a closed vent system and all emissions are accounted for in the permitted control devices.
AA-040	Double-lined kraft (DLK) fiber reclaim system
AA-041	Petroleum coke silo equipped with a baghouse for control of particulate matter
AA-042	Paved and unpaved haul roads
AA-050	250 HP (1.75 MMBtu/hr; 187 kW) diesel-fired emergency fire pump engine (Model Yr. 2022)
AA-052	183 HP (1.28 MMBtu/hr; 136.6 kW) diesel-fired emergency generator (Model Yr. 1998)
AA-053	48.8 HP (0.34 MMBtu/hr; 36.5 kW) diesel-fired emergency lime kiln auxiliary engine (Model Yr. 2011)
AA-054	58 HP (0.28 MMBtu/hr; 43.3 kW) diesel-fired emergency engine, #1 lime mud tank (Model Yr. 2008)
AA-055	58 HP (0.28 MMBtu/hr; 43.3 kW) diesel-fired emergency engine, #2 lime mud tank (Model Yr. 2007)

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, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (a) & (b).

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

(b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one 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, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided 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.)

3.A.3 For the entire facility, the permittee shall not cause, permit, or allow the emission of particles or any contaminants in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create a condition of air pollution.

(a) The permittee shall not cause or permit the handling, transporting, or storage of any material in a manner which allows or may allow unnecessary amounts of particulate matter to become airborne.

(b) When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance to property other than that from which it originated or to violate any other provision of 11 Miss. Admin. Code Pt. 2, Ch. 1, the Commission may order such corrected in a way that all air and gases or air and gasborne material leaving the building or equipment are controlled or removed prior to discharge to the open air.

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

B. Emission Point Specific Emission Limitations & Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
Facility-wide	11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).	3.B.1	PM (filterable)	$E = 4.1\ p^{0.67}$
AA-001 AA-033 AA-034 AA-037 AA-038	40 CFR 63, Subpart S NESHAP from the Pulp and Paper Industry 40 CFR 63.440, 63.453(q), and Table 1, Subpart S	3.B.2	HAP	Applicability
	40 CFR 63.443(c) and 63.450, Subpart S	3.B.3	HAP	Equipment shall be enclosed, vented to a closed vent system, and routed to a control device
	40 CFR 63.443(d)(4)(i), Subpart S	3.B.4	HAP	Reduce total HAP by introducing HAP stream with the primary fuel into the flame zone
	40 CFR 63.443(e)(1)-(3), Subpart S	3.B.5	HAP	Excess emissions
	40 CFR 63.446(c), Subpart S	3.B.6	HAP	Pulping process condensates shall be collected and treated
	40 CFR 63.446(d), Subpart S			Convey condensates in a closed collection system
	40 CFR 63.446(e)(2), and (e)(3) or (4), Subpart S			Treat or destroy condensates to reduce total HAP
	40 CFR 63.446(f), Subpart S			Control each HAP removed from a condensate stream
	40 CFR 63.446(g), Subpart S			Excess emissions
AA-001 AA-034 AA-037 AA-038	40 CFR 60, Subpart BB Standards of Performance for Kraft Pulp Mills 40 CFR 60.280, Subpart BB	3.B.7	TRS	Applicability
	40 CFR 60.283(a)(1)(iii), Subpart BB	3.B.8		Gases combusted in lime kiln/power boiler

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-003	11 Miss. Admin. Code Pt. 2,Ch. 5, as established in the PSD Construction Permit issued June 13, 1989, and modified December 17, 1996, May 1, 1998, September 27, 1999, January 13, 2000, and March 21, 2000	3.B.9	PM (filterable)	1.0 lb/air dried ton of pulp (ADTP), not to exceed 64.2 lb/hr and 281 TPY
			PM_{10} (filterable)	0.938 lb/ADTP, not to exceed 63.1 lb/hr and 276 TPY
			SO_2	0.3 lb/ADTP, not to exceed 19.3 lb/hr and 84.3 TPY
			NO_x	0.37 lb/MMBtu not to exceed 29.6 lb/hr and 130 TPY
			CO	1.0 lb/ton of calcium oxide not to exceed 10 lb/hr and 43.8 TPY
			VOC (as carbon)	0.13 lb/MMBtu not to exceed 10 lb/hr and 46 TPY
			Fuel limit	See condition
AA-003	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 2, 2008 (as a modification to the PSD Construction Permit issued June 13, 1989) (PSD-Avoidance Limit)	3.B.10	Fuel limit	≤ 18,396 TPY (12-month rolling total) petroleum coke with no more than 7% sulfur and 2% nitrogen content
AA-003 AA-005 AA-007	40 CFR 63, Subpart MM NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills 40 CFR 63.860, Subpart MM	3.B.11	HAP	Applicability
	40 CFR 63.862(a)(1)(ii), Subpart MM	3.B.12	HAP Metals (filterable PM)	1.381 lb/ton of black liquor solids (BLS) (combined "bubble limit" for chemical recovery system)
AA-003	40 CFR 63.862(a)(1)(ii), Subpart MM	3.B.12	HAP Metals (filterable PM)	0.095 gr/dscf at 10% oxygen
AA-003	11 Miss. Admin. Code Pt. 2, R. 1.3.F(2)(b).	3.B.13	PM (filterable)	1 lb/ADTP

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-003	11 Miss. Admin. Code Pt. 2, R. 1.4.B(6)(a)(2).	3.B.15	TRS	20 ppmvd at 10% oxygen, expressed as H_2S (12-hr average)
AA-003 AA-006	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit issued February 28, 2000 (PSD-Avoidance Limit)	3.B.16	Used oil restriction	7,200,000 gallons/year
AA-005	11 Miss. Admin. Code Pt. 2, Ch. 5, as established in the PSD Construction Permit issued June 13, 1989, and modified December 17, 1996, May 1, 1998, September 27, 1999, January 13, 2000, and March 21, 2000	3.B.17	PM (filterable)	0.727 tons/MMlb of BLS not to exceed 240 lb/hr and 1,054 TPY
			PM_{10} (filterable)	0.544 tons/MMlb of BLS not to exceed 180 lb/hr and 788 TPY
			SO_2	7.0 lb/ADTP not to exceed 449 lb/hr and 1,967 TPY
			NO_x	0.20 lb/MMBtu not to exceed 198 lb/hr and 867 TPY
			CO	11 lb/ADTP not to exceed 706 lb/hr and 3,092 TPY
			VOC (as carbon)	0.083 lb/MMBtu not to exceed 82 lb/hr and 361 TPY
			Fuel limit	See condition
AA-005	11 Miss. Admin. Code Pt. 2, R. 1.3.E.	3.B.18	PM (filterable)	4 lb/ADTP produced
AA-005	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.19	SO_2	4.8 lb/MMBtu
AA-005	11 Miss. Admin. Code Pt. 2, R. 1.4.B(6)(a)(1)(i).	3.B.20	TRS	40 ppmvd at 8% oxygen, expressed as H_2S (12-hr average)
AA-005	40 CFR 63.862(a)(1)(ii), Subpart MM	3.B.12	HAP Metals (filterable PM)	0.041 gr/dscf at 8% oxygen
AA-006	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit modified March 31, 2003	3.B.21	PM (filterable)	88.69 lb/hr and 388.5 TPY
			PM_{10} (filterable)	84.9 lb/hr and 371.88 TPY
			Fuel limit	May burn on-specification used oil

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-006	11 Miss. Admin. Code Pt. 2, Ch. 5, as established in the PSD Construction Permit issued June 13, 1989, and modified December 17, 1996, May 1, 1998, September 27, 1999, January 13, 2000, and March 21, 2000	3.B.22	SO_2	0.4766 lb/MMBtu not to exceed 415 lb/hr and 1,816 TPY
			NO_x	0.30 lb/MMBtu not to exceed 261 lb/hr and 1,143 TPY
			CO	0.40 lb/MMBtu not to exceed 348 lb/hr and 1,542 TPY
			VOC (as carbon)	0.055 lb/MMBtu not to exceed 48 lb/hr and 210 TPY
			Fuel limit	See condition
AA-006	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit modified March 31, 2003 40 CFR 241.4(a)(1)	3.B.23	Tire-Derived Fuel	Fuel requirement
AA-006	11 Miss. Admin. Code Pt. 2, R. 1.3.D(2).	3.B.24	PM (filterable)	0.30 gr/dscf
AA-006	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.19	SO_2	4.8 lb/MMBtu
AA-006	40 CFR 63, Subpart DDDDD NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters 40 CFR 63.7480, 63.7485, 63.7490(a)(1), (d), 63.7499(h), and Table 10, Subpart DDDDD	3.B.25	HAP	Applicability
AA-006	40 CFR 63.7500(a)(1)-(3), (f), 63.7505(a), 63.7525(a)(7), Tables 2 (Items 1 and 13) and 4 (Items 7 and 8), Subpart DDDDD	3.B.26	PM (filterable)	0.44 lb/MMBtu of heat input
			HCl	0.022 lb/MMBtu of heat input
			Hg	0.0000057 lb/MMBtu of heat input
			CO	3,500 ppmvd at 3% oxygen (3-run average)
			Operating limits	Operating load and oxygen analyzer system requirements

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-007	11 Miss. Admin. Code Pt. 2, Ch. 5, as established in the PSD Construction Permit issued June 13, 1989, and modified December 17, 1996, May 1, 1998, September 27, 1999, January 13, 2000, and March 21, 2000	3.B.27	PM (filterable)	0.091 tons/MMlb of BLS not to exceed 30 lb/hr and 132 TPY
			TRS (as H_2S)	0.0133 grams per kilogram of BLS (dry weight) not to exceed 2.2 lb/hr and 9.6 TPY
AA-007	40 CFR 63.862(a)(1)(ii), Subpart MM	3.B.12	HAP Metals (filterable PM)	0.16 lb/ton BLS fired
AA-007	11 Miss. Admin. Code Pt. 2, R. 1.3.F(2)(c).	3.B.28	PM (filterable)	0.5 lb/ADTP
AA-007	11 Miss. Admin. Code Pt. 2, R. 1.4.B(6)(a)(6).	3.B.29	TRS	0.016 grams of TRS, expressed as H_2S, per kg BLS (dry weight)
AA-009	11 Miss. Admin. Code Pt. 2, Ch. 5, as established in the PSD Construction Permit issued June 13, 1989, and modified December 17, 1996, May 1, 1998, September 27, 1999, January 13, 2000, and March 21, 2000	3.B.30	PM (filterable)	3.5 lb/hr and 15.2 TPY
AA-010 AA-011	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the TVOP issued October 5, 2021	3.B.31	Operating limit	Operate boilers no more than 180 consecutive days in same or similar function
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued April 14, 1997	3.B.32	Heat Input	≤ 99 MMBtu/hr
			Fuel limit	Natural gas only
	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.14	PM (filterable)	$\boldsymbol{E} = 0.8808 * \boldsymbol{I}^{-0.1667}$
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.19	SO_2	4.8 lb/MMBtu
AA-021	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 1998	3.B.33	VOC (as carbon)	4.41 lb/hr and 19.3 TPY
			TRS	0.30 lb/hr and 1.314 TPY

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-041	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 2, 2008 (as a modification to PSD Permit issued June 13, 1989)	3.B.34	Operating Requirement	Operate baghouse at all times
AA-050 AA-052 AA-053 AA-054 AA-055	40 CFR 63, Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines 40 CFR 63.6580, 63.6585(a), (b), 63.6590(a)(1)(ii), (a)(2)(ii), (c)(6), and Table 8, Subpart ZZZZ	3.B.35	HAP	Applicability
AA-052	40 CFR 63.6640(f)(1)-(3), Subpart ZZZZ	3.B.36	HAP	Operating requirements
AA-050 AA-053 AA-054 AA-055	40 CFR 60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60.4200(a)(2) and Table 8, Subpart IIII	3.B.37	$NMHC+NO_x$ CO PM (filterable) SO_2	Applicability
	40 CFR 60.4205(b), (c), 60.4206, Tables 2 and 4, Subpart IIII	3.B.38	$NMHC+NO_x$ CO PM (filterable) Opacity	See condition
	40 CFR 60.4207(b), Subpart IIII	3.B.39	SO_2 (Diesel fuel requirements)	15 ppm sulfur content (max.); and 40 cetane index (min.) or 35 vol.% aromatic content (max.)
	40 CFR 60.4211(a) and (c), Subpart IIII	3.B.40	$NMHC+NO_x$ CO PM (filterable)	Certified engine requirements
	40 CFR 60.4211(f)(1)-(3), Subpart IIII	3.B.41		Operating requirements
AA-050 AA-052 AA-053 AA-054 AA-055	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.B.42	PM (filterable)	0.6 lb/MMBtu

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-006	40 CFR Part 64 Compliance Assurance Monitoring 40 CFR 64.2(a)	3.B.43	PM_{10}	CAM Applicability
AA-003 AA-006			SO_2	CAM Applicability

3.B.1 The permittee shall not allow particulate matter (PM) emissions in total quantities in any one hour from any manufacturing process, which includes any associated stacks, vents, outlets, or combination thereof, to exceed the amount determined by the relationship:

$$\boldsymbol{E} = 4.1 * \boldsymbol{p}^{0.67}$$

where ***E*** is the emission rate in pounds per hour and ***p*** is the process weight input in tons per hour. The process weight input shall be the total combined input values for the facility.

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

3.B.2 Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038 are subject to the applicable requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) from the Pulp and Paper Industry, 40 CFR 63, Subpart S and the applicable General Provisions, 40 CFR 63, Subpart A found in Table 1 of Subpart S.

The permittee shall operate and maintain all affected sources, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the DEQ which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(Ref.: 40 CFR 63.440 and 63.453(q), Subpart S)

3.B.3 Emission Points AA-001, AA-033, AA-034, AA-037 and AA-038 shall be enclosed and vented into a closed-vent system and routed to a control device. The enclosures and closed-vent systems shall meet the following requirements:

(a) Each enclosure shall maintain a negative pressure at each enclosure or hood opening as demonstrated by the procedures specified in 40 CFR 63.457(e). Each enclosure or hood opening closed during the initial performance test specified in 40 CFR 63.457(a) shall be maintained in the same closed and sealed position as during the performance test at all times except when necessary to use the opening for sampling, inspection, maintenance, or repairs.

(b) Each component of the closed-vent system used to comply with 40 CFR 63.443(c), 63.444(b), and 63.445(b), that is operated at positive pressure and located prior to a control device, shall be designed for and operated with no detectable leaks as

indicated by an instrument reading of less than 500 parts per million (ppm) by volume above background, as measured by procedures specified in 40 CFR 63.457(d).

(c) Each bypass line in the closed-vent system that could divert vent streams containing HAP to the atmosphere without meeting the emission limitations in 40 CFR 63.443, 63.444 or 63.445 shall comply with the following:

(1) On each bypass line, the permittee shall install, calibrate, maintain, and operate according to the manufacture's specifications a flow indicator that is capable of taking periodic readings as frequently as specified in 40 CFR 63.454(e). The flow indicator shall be installed in the bypass line in such a way as to indicate flow in the bypass line.

(2) For bypass lines that are not computer controlled, the permittee shall maintain the bypass line valve in the closed position with a car seal placed on the valve or closure mechanism in such a way that valve or closure mechanism cannot be opened without breaking the seal.

(Ref.: 40 CFR 63.443(c) and 63.450, Subpart S)

3.B.4 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee shall control total HAP emissions by introducing the HAP emission stream with the primary fuel into the flame zone of the lime kiln or the power boiler.

(Ref.: 40 CFR 63.443(d)(4)(i), Subpart S)

3.B.5 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, excess emissions reported under Condition 5.C.4 shall not be a violation provided the time of excess emissions divided by the total process operating time in a semiannual reporting period does not exceed the following levels:

(a) One percent (1%) for control devices used to reduce the total HAP emissions from the LVHC system;

(b) Four percent (4%) for control devices used to reduce the total HAP emissions from the HVLC system; and

(c) Four percent (4%) for control devices used to reduce the total HAP emissions from both the LVHC and HVLC systems.

(Ref.: 40 CFR 63.443(e)(1)-(3), Subpart S)

3.B.6 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, all pulping condensates from all affected equipment systems; or the combined pulping process condensates from each HVLC collection system and each LVHC collection system, plus pulping process condensate stream(s) that in total contain a total HAP mass of more than 7.2 lb/ton ODP. Streams from the digester system(s), the turpentine recovery system(s), and the evaporator stage(s) where weak liquor is introduced into the evaporator system(s); or the pulping process condensates from these systems shall be subject to the requirements listed below:

(a) The pulping process condensates from the affected equipment systems shall be conveyed in a closed collection system that is designed and operated to meet the following requirements:

(1) Condensate tanks used in the closed collection system shall meet the following requirements:

(i) The fixed roof and all openings shall be designed and operated with no detectable leaks as indicated by an instrument reading of less than 500 parts per million (ppm) above background, and vented into a closed-vent system that meets the requirements of Condition 3.B.3(a) through (c) and routed to a control device that meets the control requirements of 40 CFR 63.443(d); and

(ii) Each opening shall be maintained in a closed, sealed position at all times that the tank contains pulping process condensates or any HAP removed from a pulping process condensate stream except when it is necessary to use the opening for sampling, removal or for equipment inspection, maintenance or repair.

(b) The pulping process condensates from the affected equipment systems shall be treated according to one of the following options:

(1) Treat the pulping process condensates to reduce or destroy the total HAP by at least 92 percent (%) or more by weight; or

(2) Treat the pulping process condensates to remove 6.6 pounds of total HAP per ton of ODP or achieve a total HAP concentration of 210 ppm or less by weight at the outlet of the control device.

Each HAP removed from the pulping process condensate stream during treatment and handling under paragraphs (a) or (b) above shall be captured and controlled as specified in 40 CFR 63.443(c) and (d). The condensates shall be collected in the Main Foul Condensate Collection Tank and conveyed to the permittee's aerated stabilization basin (ASB) (AA-036) where it will be discharged below the surface in accordance with 40 CFR 63.446(e)(2). For each control device used to treat pulping process condensates to comply with the requirements of (b)(1) or (b)(2) above, the permittee shall measure the total HAP concentration as methanol, acetaldehyde, methyl ethyl ketone, and propionaldehyde and follow the procedures in 40 CFR 63.457(l)(1) and (2).

(Ref.: 40 CFR 63.446(c), (d), (e)(2) and (e)(3) or (4), (f), and (g), Subpart S)

3.B.7 Emission Points AA-001, AA-034, AA-037, and AA-038 are subject to and shall comply with the applicable requirements of the Standards of Performance for Kraft Pulp Mills, 40 CFR 60, Subpart BB.

(Ref.: 40 CFR 60.280, Subpart BB)

3.B.8 For Emission Points AA-001, AA-034, AA-037, and AA-038, the permittee shall not discharge into the atmosphere any gases that contain TRS in excess of 5 ppm by volume on a dry basis, corrected to 10 percent (%) oxygen, unless the gases are combusted with other waste gases in an incinerator or other device, or combusted in a lime kiln or recovery furnace not subject to Subpart BB and the gases are subjected to a minimum temperature of 1,200 °F for at least 0.5 seconds.

(Ref.: 40 CFR 60.283(a)(1)(iii), Subpart BB)

3.B.9 For Emission Point AA-003, emissions shall be limited in accordance with the following:

(a) PM (filterable) – 1.0 lb/air dried ton of pulp (ADTP) not to exceed 64.2 lb/hr and 281 TPY;

(b) PM_{10} (filterable) – 0.938 lb/ADTP not to exceed 63.1 lb/hr and 276 TPY;

(c) SO_2 – 0.3 lb/ADTP not to exceed 19.3 lb/hr and 84.3 TPY;

(d) NO_x – 0.37 lb/MMBtu not to exceed 29.6 lb/hr and 130 TPY;

(e) CO – 1.0 lb/ton of calcium oxide (CaO) not to exceed 10 lb/hr and 43.8 TPY;

(f) VOC (as carbon) – 0.13 lb/MMBtu not to exceed 10 lb/hr and 46 TPY; and

(g) Limited to burning natural gas, fuel oil with a maximum sulfur content of 3.0%, and on specification used oil.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5, as established in the PSD Construction Permit issued June 13, 1989; and modified December 17, 1996; May 1, 1998; September 27, 1999; January 13, 2000; and March 21, 2000)

3.B.10 For Emission Point AA-003, the permittee may burn petroleum coke. However, burning petroleum coke is limited to 18,396 TPY determined for each consecutive 12-month rolling period, with a maximum 7% sulfur and 2% nitrogen content.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 2, 2008 (as a modification to the PSD Permit issued June 13, 1989) [PSD-Avoidance Limit])

3.B.11 Emission Points AA-003, AA-005, and AA-007 are subject to and shall comply with all applicable requirements of the NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills, 40 CFR 63, Subpart MM and the applicable General Provisions, 40 CFR 63, Subpart A found in Table 1 of Subpart MM.

The permittee must at all times operate and maintain the affected sources, including associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination

of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the DEQ which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(Ref.: 40 CFR 63.860, Subpart MM)

3.B.12 Emission Points AA-003, AA-005, and AA-007 constitute a chemical recovery system at an existing kraft pulp mill subject to 40 CFR Part 63, Subpart MM. As an alternative to meeting the requirements of 40 CFR 63.862(a)(1)(i), the permittee has established the following PM emissions limits using the procedures in 40 CFR 63.865(a)(1) and (2):

(a) Overall PM emission limit for the Chemical Recovery System (AA-003, AA-005, and AA-007, combined) ≤ 1.381 lb/ton black liquor solids (BLS) fired;

(b) PM emission limit for Lime Kiln (AA-003) ≤ 0.095 gr/dscf, corrected to 10% oxygen;

(c) PM emission limit for Recovery Furnace (AA-005) ≤ 0.041 gr/dscf, corrected to 8% oxygen; and

(d) PM emission limit for Smelt Dissolving Tank (AA-007) ≤ 0.16 lb/ton of BLS fired.

(Ref.: 40 CFR 63.862(a)(1)(ii), Subpart MM)

3.B.13 For Emission Point AA-003, the permittee shall not emit more than one pound of particulate matter per ton of equivalent air-dried Kraft pulp (i.e., 1 lb PM/ADTP).

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

3.B.14 For Emission Points AA-010 and AA-011, the maximum permissible emission of ash and/or PM when burning fossil fuels shall not exceed an emission rate as determined by the relationship:

$$\boldsymbol{E} = 0.8808 * \boldsymbol{I}^{-0.1667}$$

where $\boldsymbol{E}$ is the emission rate in pounds per million BTU per hour heat input, and $\boldsymbol{I}$ is the heat input in millions of BTU per hour.

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

3.B.15 For Emission Point AA-003, the permittee shall control emissions of total reduced sulfur compounds (TRS) from the lime kiln so as not to exceed 20 parts per million of TRS, expressed as hydrogen sulfide (H_2S) on a dry gas basis corrected to 10% oxygen, on a 12-hour average basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.B(6)(a)(2).)

3.B.16 For Emission Points AA-003 and AA-006, the total on-specification used oil that may be fired in both units combined shall be limited to a maximum of 7,200,000 gallons per year on a consecutive 12-month rolling total basis. This fuel usage restriction will ensure that potential lead (Pb) emission increases shall not exceed the PSD significant threshold limit of 0.6 TPY, based on the defining criteria for on-specification used oil found in 40 CFR 279.11 of the Standards for the Management of Used Oil, 40 CFR 279, Subpart B.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit issued February 28, 2000 [PSD-Avoidance Limit])

3.B.17 For Emission Point AA-005, emissions shall be limited in accordance with the following:

(a) PM (filterable) – 0.727 tons/MMlb of BLS not to exceed 240 lb/hr and 1,054 TPY;

(b) PM_{10} (filterable) – 0.544 tons/MMlb of BLS not to exceed 180 lb/hr and 788 TPY;

(c) SO_2 – 7.0 lbs/ADTP not to exceed 449 lb/hr and 1,967 TPY;

(d) NO_x – 0.2 lbs/MMBtu not to exceed 198 lb/hr and 867 TPY;

(e) CO – 11.0 lbs/ADTP not to exceed 706 lb/hr and 3,092 TPY;

(f) VOC (as carbon) – 0.083 lb/MMBtu not to exceed 82 lb/hr and 361 TPY; and

(g) Limited to burning natural gas, fuel oil, black liquor solids (BLS), and black liquor soaps.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5, as established in the PSD Construction Permit issued June 13, 1989; and modified December 17, 1996; May 1, 1998; September 27, 1999; January 13, 2000; and March 21, 2000)

3.B.18 For Emission Point AA-005, emissions of particulate matter from the recovery furnace stack shall not exceed four (4) pounds per ton of equivalent air-dried Kraft pulp produced at any time.

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

3.B.19 For Emission Points AA-005, AA-006, AA-010, and AA-011, the maximum discharge of sulfur oxides from any fuel burning installation 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) per million BTU heat input.

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

3.B.20 For Emission Point AA-005, the permittee shall control emissions of total reduced sulfur compounds (TRS) from the recovery boiler so as not to exceed 40 parts per million of TRS, expressed as hydrogen sulfide (H_2S) on a dry gas basis corrected to 8% oxygen, on a 12-hour average basis.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.B(6)(a)(1)(i).)

3.B.21 For Emission Point AA-006, emissions shall be limited in accordance with the following:

(a) PM (filterable) – 88.69 lb/hr and 388.5 TPY;

(b) PM_{10} (filterable) – 84.9 lb/hr and 371.88 TPY; and

(c) Allowed to burn on-specification used oil.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit modified March 31, 2003)

3.B.22 For Emission Point AA-006, emissions shall be limited in accordance with the following:

(a) SO_2 – 0.4766 lb/MMBtu not to exceed 415 lb/hr and 1,816 TPY;

(b) NO_x – 0.30 lb/MMBtu not to exceed 261 lb/hr and 1,143 TPY;

(c) CO – 0.40 lb/MMBtu not to exceed 348 lb/hr and 1,542 TPY;

(d) VOC (as carbon) – 0.055 lb/MMBtu not to exceed 48 lb/hr and 210 TPY; and

(e) Limited to burning natural gas, fuel oil with a maximum sulfur content of 3%, woodwaste, LVHC gases, up to 50 tons/day of untreated cotton seed and/or nonhazardous pesticide treated cotton seed, and up to 7 tons/hour of tire derived fuel. The cotton seed approval only applies to the firing of the cotton seed. The incineration of any seed containers is prohibited.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5, as established in the PSD Construction Permit issued June 13, 1989; and modified December 17, 1996; May 1, 1998; September 27, 1999; January 13, 2000; and March 21, 2000)

3.B.23 For Emission Point AA-006, tire-derived fuel shall only consist of scrap tires that are not discarded and are managed under the oversight of an established tire collection program.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit modified March 31, 2003)
(Ref.: 40 CFR 241.4(a)(1))

3.B.24 For Emission Point AA-006, fuel burning operations utilizing a mixture of combustibles such as, but not limited to, fossil fuels plus bark, oil plus bark, or spent wood, or water treatment by-products sludge, may be allowed particulate matter emission rates up to 0.30 grains per standard dry cubic foot.

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

3.B.25 Emission Point AA-006, is subject to and shall comply with all applicable requirements of the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD, and the applicable General Provisions, 40 CFR 63, Subpart A found in Table 10 of Subpart DDDDD. For purposes of Subpart DDDDD, the boiler is considered an existing boiler in the "hybrid suspension/grate burners designed to burn wet biomass/bio-based solids" category.

(Ref.: 40 CFR 63.7480, 63.7485, 63.7490(a)(1), (d), 63.7499(h), and Table 10, Subpart DDDDD)

3.B.26 For Emission Point AA-006, the permittee shall comply with the following emission and operating limits:

(a) PM (filterable) – 0.44 lb/MMBtu of heat input;

(b) HCl – 0.022 lb/MMBtu of heat input;

(c) Hg – 0.0000057 lb/MMBtu of heat input;

(d) CO – 3,500 ppm by volume on a dry basis corrected to 3% oxygen (3-run average);

(e) Maintain the 30-day rolling average pressure drop and the 30-day rolling average liquid flow rate at or above the lowest one-hour average pressure drop and the lowest one-hour average liquid flow rate, respectively, measured during the most recent performance test used to confirm or reestablish the operating limit;

(f) Maintain the 30-day rolling average operating load of the boiler such that it does not exceed 110 % of the highest hourly average operating load recorded during the most recent performance test used to confirm or reestablish the operating limit; and

(g) Maintain the 30-day rolling average oxygen of the boiler such that it is at or above the lowest one-hour average oxygen level measured during the most recent performance test used to establish the operating limit.

The permittee shall operate and maintain the boiler and any associated control equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. The emission limits noted above are applicable at all times the boiler is operating, except during periods of startup and shutdown.

(Ref.: 40 CFR 63.7500(a)(1)-(3), (f), 63.7505(a), 63.7525(a)(7), Tables 2 (Items 1 and 13) and 4 (Items 7 and 8), Subpart DDDDD)

3.B.27 For Emission Point AA-007, the permittee shall comply with the following emission limits:

(a) PM (filterable) – 0.091 tons/MMlb of BLS not to exceed 30 lb/hr and 132 TPY; and

(b) TRS (as H_2S) – 0.0133 grams per kilogram of BLS (dry weight) not to exceed 2.2 lb/hr and 9.6 TPY.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5, as established in the PSD Construction Permit issued June 13, 1989; and modified December 17, 1996; May 1, 1998; September 27, 1999; January 13, 2000; and March 21, 2000)

3.B.28 For Emission Point AA-007, the permittee shall not emit more than one-half pound of particulate matter per ton of equivalent air-dried Kraft pulp (i.e., 0.5 lb PM/ADTP).

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

3.B.29 For Emission Point AA-007, the permittee shall control emissions of total reduced sulfur compounds (TRS) from the smelt dissolving tank so as not to exceed 0.016 gram of TRS, expressed as hydrogen sulfide (H_2S) on a dry gas basis, per kilogram of black liquor solids (dry weight).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.B(6)(a)(6).)

3.B.30 For Emission Point AA-009, the permittee shall not emit any gases to the atmosphere that contain particulate matter (filterable) in excess of 3.5 lb/hr and 15.2 TPY.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5, as established in the PSD Construction Permit issued June 13, 1989; and modified December 17, 1996; May 1, 1998; September 27, 1999; January 13, 2000; and March 21, 2000)

3.B.31 For Emission Points AA-010 and AA-011, each boiler shall not remain at a location on site more than 180 consecutive days. Any temporary boiler used to replace a temporary boiler at a location and performing the same or similar function shall be included in calculating the consecutive time period.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Title V Operating Permit issued October 5, 2021)

3.B.32 For Emission Points AA-010 and AA-011, the permittee shall not bring a temporary boiler on site with a maximum design heat input capacity exceeding 99 MMBtu/hr and shall limit each boiler to firing natural gas only in each boiler.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued April 14, 1997)

3.B.33 For Emission Point AA-021, the permittee shall not emit any gases to the atmosphere that contain VOC (as carbon) in excess of 4.41 lb/hr and 19.3 TPY and TRS in excess of 0.30 lb/hr and 1.314 TPY.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the federally enforceable Permit to Construct issued September 1998)

3.B.34 For Emission Point AA-041, the permittee shall maintain and operate the baghouse on the petroleum coke silo at all times when the silo is in use.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Permit to Construct issued September 2, 2008 (as a modification to PSD Permit issued June 13, 1989)

3.B.35 Emission Points AA-050, AA-052, AA-053, AA-054, and AA-055, are subject to and shall comply with the applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR 63, Subpart ZZZZ and the applicable General Provisions, 40 CFR 63, Subpart A as listed in Table 8 of Subpart ZZZZ.

Emission Point AA-052 is considered an existing, emergency, compression ignition (CI) stationary RICE located at a major source of HAP emissions. This engine shall comply with all applicable requirements of Subpart ZZZZ.

Emission Points AA-050, AA-053, AA-054, and AA-055 are considered new, emergency, CI stationary RICE with site ratings less than 500 brake HP that are located at a major source of HAP emissions. As such, the permittee shall comply with Subpart ZZZZ by complying with the applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (ICE), 40 CFR 60, Subpart IIII.

(Ref.: 40 CFR 63.6580, 63.6585(a), (b), 63.6590(a)(1)(ii), (a)(2)(ii), (c)(6), and Table 8, Subpart ZZZZ)

3.B.36 Emission Point AA-052 shall be considered emergency stationary RICE under Subpart ZZZZ provided the engine only operates in an emergency, during maintenance and testing, and during non-emergency situations for 50 hours per year as described in (c) below. If the permittee does not operate an engine according to the requirements in (a)-(c) below, the engine will not be considered an emergency engine under Subpart ZZZZ and must meet all requirements for non-emergency engines.

(a) There is no limit on the use of an engine during an emergency situation.

(b) The permittee may operate an engine for maintenance checks and readiness testing for a maximum of 100 hours per calendar year provided the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or insurance company associated with an engine. The permittee may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating the federal, state, or local standards require maintenance testing of an engine beyond 100 hours per calendar year.

(c) Emergency engines may be operated 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 provided in paragraph (b). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise 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.37 Emission Points AA-050, AA-053, AA-054, and AA-055 are subject to and shall comply with the applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII and the General Provisions, 40 CFR 60, Subpart A, as specified in Table 8 of Subpart IIII.

(Ref: 40 CFR 60.4200(a)(2) and Table 8, Subpart IIII)

3.B.38 For Emission Points AA-050, AA-053, AA-054, and AA-055, the permittee shall operate and maintain the engines such that they achieve the emission standards listed below, for the life of the engine:

(a) AA-050 (130≤ KW <225)

(1) NMHC + NO_x ≤ 4.0 g/kW-hr

(2) CO ≤ 3.5 g/kW-hr

(3) PM (filterable) ≤ 0.20 g/kW-hr

(b) AA-053 (19≤ KW <37)

(1) NMHC + NO_x ≤ 7.5 g/kW-hr

(2) CO ≤ 5.5 g/kW-hr

(3) PM (filterable) ≤ 0.30 g/kW-hr

(c) AA-054/AA-055 (37≤ kW <75)

(1) NMHC + NO_x ≤ 4.7 g/kW-hr

(2) CO ≤ 5.0 g/kW-hr

(3) PM (filterable) ≤ 0.40 g/kW-hr

(d) AA-053, AA-054, and AA-055 (Opacity Standards)

(1) ≤ 20 percent during the acceleration mode;

(2) ≤ 15 percent during the lugging mode;

(3) ≤ 50 percent during the peaks in either acceleration or lugging mode.

(Ref.: 40 CFR 60.4205(b), (c), 60.4206, Tables 2 and 4, Subpart IIII)

3.B.39 For Emission Points AA-050, AA-053, AA-054, and AA-055, the permittee shall use diesel fuel that meets the following per gallon standards:

(a) Maximum sulfur content of 15 ppm, **AND**

(b) Minimum cetane index of 40 **OR** maximum aromatic content of 35 volume percent.

(Ref.: 40 CFR 60.4207(b), Subpart IIII)

3.B.40 For Emission Points AA-050, AA-053, AA-054, and AA-055, the permittee shall comply with the applicable emission standards by purchasing, installing, operating, and maintaining the engines certified to meet the emission standards. The permittee shall operate and maintain the engines in accordance with the manufacturer's emission-related written instructions and can only change the emission-related settings that are permitted by the manufacturer.

(Ref.: 40 CFR 60.4211(a) and (c), Subpart IIII)

3.B.41 For Emission Points AA-050, AA-053, AA-054, and AA-055, the engines shall be considered emergency stationary RICE under Subpart IIII provided the engines only operate in an emergency, during maintenance and testing, and during non-emergency situations as described in (c) below. If the permittee does not operate an engine in accordance with the requirements in (a)-(c) below, the engine will not be considered an emergency engine under Subpart IIII and it must then meet all applicable requirements for non-emergency engines.

(a) There is no limit on the use of the engine during an emergency situation.

(b) The permittee may operate the engine for maintenance checks and readiness testing for a maximum of 100 hours per calendar year provided the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or insurance company associated with the engines. The permittee may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating the federal, state, or local standards require maintenance testing of the engine beyond 100 hours per calendar year.

(c) The emergency engine may be operated 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 provided in paragraph (b). Except as provided in 40 CFR 60.4211 (f)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4211(f)(1)-(3), Subpart IIII)

3.B.42 For Emission Points AA-050, AA-052, AA-053, AA-054, and AA-055, the maximum permissible emission of ash and/or PM from fossil fuel burning installations of less than 10 MMBTU/hour heat input shall not exceed 0.6 pounds per MMBTU/hour heat input.

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

3.B.43 For Emission Points AA-003 and AA-006, the permittee is subject to and shall comply with all applicable requirements of 40 CFR Part 64 – Compliance Assurance Monitoring (CAM).

(Ref.: 40 CFR 64.2(a); Compliance Assurance Monitoring)

C. Insignificant and Trivial Activity Emission Limitations & Standards

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

3.C.1 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU 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 installation 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) 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	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-006	40 CFR 63.7500(a)(1), 63.7515(d), 63.7540(a)(10)(i)-(vi), (12), and Table 3, Subpart DDDDD	3.D.1	HAP	Tune-up requirement
	40 CFR 63.7500(f), 63.7540(d), Items 5 and 6 of Table 3, Subpart DDDDD	3.D.2		Startup and shutdown conditions
AA-052	40 CFR 63.6602 and Table 2c, Subpart ZZZZ	3.D.3	HAP	Maintenance requirements
	40 CFR 63.6605(a) and (b), Subpart ZZZZ	3.D.4		General compliance requirements
	40 CFR 63.6625(e)(2), (h), 63.6640(a) and Table 6, Subpart ZZZZ	3.D.5		Operating requirements

3.D.1 For Emission Point AA-006, the permittee shall conduct a tune-up annually with each subsequent tune-up being completed no more than 13 months after the previous tune-up. Each tune-up shall consist of the following:

(a) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the burner inspection may be delayed until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspection, inspections are required only during planned entries into the storage vessel or process equipment;

(b) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

(c) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the inspection may be delayed until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

(d) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;

(e) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

(f) Maintain on-site and submit, if requested by DEQ, an annual report containing the concentrations of CO in the effluent stream in ppmv, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up; a description of any corrective actions taken as a part of the tune-up; and the type and amount of fuel used over the 12 months prior to the tune-up.

(Ref.: 40 CFR 63.7500(a)(1), 63.7515(d), 63.7540(a)(10)(i)-(vi), (12), and Table 3, Subpart DDDDD)

3.D.2 For Emission Point AA-006, the permittee shall operate the boiler in accordance with the following requirements during periods of startup and shutdown:

(a) All continuous monitoring systems (CMS) must be operated during startups and shutdowns.

(b) For startup, the permittee must use one or a combination of the following clean fuels: natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, liquefied petroleum gas, clean dry biomass, and any fuels meeting the appropriate HCl, mercury and TSM emission standards by fuel analysis.

(c) Startup ends either (1) four hours after when the boiler or process heater supplies useful thermal energy for heating, cooling, or process purposes, or (2) generates electricity, whichever is earlier.

(d) Once the permittee starts firing fuels that are not clean fuels, the permittee must vent emissions to the main stack and operate all control devices.

(e) For shutdown, the permittee shall vent emissions to the main stack and operate all control devices when firing fuels that are not clean fuels. If an additional fuel must be used to support the shutdown process, the additional fuel must be one or a combination of the clean fuels listed in paragraph (b).

(f) The permittee shall comply with all applicable emission limits at all times except during startup and shutdown periods as which time the work practice standards shall be met.

(Ref.: 40 CFR 63.7500(f), 63.7540(d), Items 5 and 6 of Table 3, Subpart DDDDD)

3.D.3 For Emission Point AA-052, the permittee shall comply with the following requirements:

(a) Change oil and filter every 500 hours of operation or annually, whichever comes first or perform an oil analysis at the same frequency in order to extend the oil change requirement in accordance with 40 CFR 63.6625(i).

(b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace when necessary.

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

If an engine is operating during an emergency and it is not possible to shut down the engine in order to perform the maintenance practice according to the schedule listed in (a)-(c) above, or if performing the maintenance practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The maintenance practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated.

(Ref.: 40 CFR 63.6602 and Table 2c, Subpart ZZZZ)

3.D.4 For Emission Point AA-052, the permittee shall comply at all times with the applicable emission and operating limitations of Subpart ZZZZ and operate and maintain the engines, including associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the MDEQ which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(Ref.: 40 CFR 63.6605(a) and (b), Subpart ZZZZ)

3.D.5 For Emission Point AA-052, the permittee shall operate and maintain the engines according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions. The permittee shall minimize each engine's time spent at idle during startup and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

(Ref. 40 CFR 63.6625(e)(2) and (h), 63.6640(a) and Table 6, 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 31 for the preceding calendar year. If the permit was reissued or modified during the course of the preceding calendar year, the compliance certification shall address each version of the permit. 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;

(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), & (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 31 and January 31 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 11 Miss. Admin. Code Pt. 2, R. 6.2.E. For applicable periodic reporting requirements in 40 CFR Parts 60, 61, and 63, the permittee shall comply with the deadlines in this condition for reporting conducted on a semiannual basis. Additionally, any required quarterly reports shall be

submitted by the end of the month following each calendar quarter (i.e., April 30th, July 31st, October 31st, and January 31st), and any required annual reports shall be submitted by January 31st following each calendar year.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1)., 40 CFR 60.19(c), 61.10(g), and 63.10(a)(5))

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).)

5.A.8 Unless otherwise specified in Section 4, upon permit issuance, the monitoring, testing, recordkeeping, and reporting requirements of Section 5 herein supersede the requirements of any preceding permit to construct and/or operate.

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

B. Specific Monitoring and Recordkeeping Requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-001 AA-033 AA-034 AA-037 AA-038	40 CFR 63.453(a) and (i), Subpart S	5.B.1	HAP	Continuous monitoring
	40 CFR 63.453(j)(2) and (3), Subpart S	5.B.2		Routine monitoring and testing of biological treatment system
	40 CFR 63.453(k), Subpart S	5.B.3		Monitoring of enclosures and closed-vent systems
	40 CFR 63.453(l), Subpart S	5.B.4		Monitor condensate closed collection system
	40 CFR 63.453(n), Subpart S	5.B.5		Establish operating parameters to be monitored
	40 CFR 63.453(o), Subpart S	5.B.6		Control device operating parameters
	40 CFR 63.453(p), 63.454(f), and 63.457(l)(2), Subpart S	5.B.7		Performance testing
	40 CFR 63.454(a), (b), and (g), Subpart S	5.B.8		Recordkeeping
AA-003	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.9	PM/PM_{10} (filterable) SO_2 NO_x CO VOC	Performance testing
		5.B.10	Fuels	Monitor monthly fuel usage and keep records
		5.B.11	Used oil	Monitor and maintain records of used oil shipments and specifications
		5.B.12	Scrubbing liquid pH	Monitor pH of scrubbing liquid weekly, except when burning petroleum coke
		5.B.13	Temperature	Monitor and record temperature on hot end of lime kiln

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-003	40 CFR 63.864(e)(10) and (h), Subpart MM	5.B.14	Scrubber pressure drop and scrubbing liquid flow rate	Continuous parameter monitoring system requirements for scrubber
	40 CFR 63.864(k)(1)(ii), (2)(iv), and 63.866(b), Subpart MM	5.B.37		Corrective actions
	40 CFR 63.863(c) and 63.865, Subpart MM	5.B.15	PM (filterable)	Performance testing
	40 CFR 63.866(c)(1)-(5) and (d), Subpart MM	5.B.16	HAP	Recordkeeping
	40 CFR 63.864(f), Subpart MM	5.B.17	HAP	Data quality assurance
AA-003 AA-005	11 Miss. Admin. Code Pt. 2, R. 1.4.B(6)(c) and (e).	5.B.18	TRS	Continuous TRS and O_2 monitoring
AA-005	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.19	PM/PM_{10} (filterable) Opacity NO_x CO VOC (as carbon)	Performance testing
		5.B.10	Fuels	Monitor monthly fuel usage and keep records
		5.B.20	SO_2	CEMS
		5.B.21	Operations	Develop and maintain an Operation and Maintenance (O&M) Plan
AA-005	40 CFR 63.864(d)(3),(4), and 63.864(h), Subpart MM	5.B.22	Opacity	COMS
	40 CFR 63.864(k)(1)(i) and (2)(iv), Subpart MM	5.B.37		Corrective Actions
	40 CFR 63.864(e)(1), Subpart MM	5.B.23	ESP operating parameter	Proper operation of the ESP Automatic Voltage Control
	40 CFR 63.863(c) and 63.865, Subpart MM	5.B.15	PM	Performance testing

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-005	40 CFR 63.866(c)(1)-(5) and (d), Subpart MM	5.B.16	HAP	Recordkeeping
	40 CFR 63.864(f), Subpart MM	5.B.17		Data quality assurance
AA-006	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.10	Fuels	Monitor monthly fuel usage and keep records
		5.B.24	PM/PM_{10} (filterable) SO_2 VOC (as carbon) NO_x CO	Performance testing
AA-006	40 CFR 63.7505(d) and 63.7520(a), Subpart DDDDD 40 CFR 63.7(c), Subpart A	5.B.27	HAP	Develop site-specific monitoring and stack testing plans
	40 CFR 63.7540(a)(2) and 63.7555(d)(1), Subpart DDDDD	5.B.28	Fuel	Monthly fuel use
	40 CFR 63.7510(a), (b), 63.7515(a)-(c), (e), 63.7520(b), (c), and (e), Subpart DDDDD	5.B.29	HCl Hg CO PM (filterable)	Performance testing
	40 CFR 63.7530(c)(1)-(4), Subpart DDDDD	5.B.30	Fuel	Fuel analyses (if change in compliance approach for HCl and/or Hg)
	40 CFR 63.7525(a), 63.7530(b)(4)(viii), 63.7575, and Table 7, Subpart DDDDD	5.B.31	Oxygen	Establish minimum oxygen level operating limit
	40 CFR 63.7525(e) and (f), Subpart DDDDD	5.B.32	Scrubber pressure drop and liquid flow rate	Continuous monitoring requirements for scrubber
	40 CFR 63.7535, Subpart DDDDD	5.B.33	HAP	Required monitoring data
	40 CFR 63.7555(a), (b), (c), (d)(1), (3)-(7), (9), (10), and 63.7560, Subpart DDDDD	5.B.34	HAP	Recordkeeping

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-007	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.35	BLS feed rate	Monitor and record BLS feed rate
AA-007	40 CFR 63.864(e)(10)(ii)-(iii), (h), (j) and 63.866(c)(3), Subpart MM	5.B.36	Scrubbing liquid flow rate and fan amperage	Continuous parameter monitoring system requirements for scrubber
	40 CFR 63.863(c) and 63.865, Subpart MM	5.B.15	PM	Performance testing
	40 CFR 63.864(k)(1)(i)-(ii), (2)(i),(iv), (3) and 63.866(b), Subpart MM	5.B.37	Operating parameters HAP	Corrective actions
	40 CFR 63.866(c)(4), (5) and (d), Subpart MM	5.B.38		Recordkeeping
	40 CFR 63.864(f), Subpart MM	5.B.17		Data quality assurance
AA-007	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.39	TRS	Performance testing within two years of issuance and every five years thereafter
AA-009	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.39	PM (filterable)	Performance testing within two years of issuance and every five years thereafter
		5.B.40		Monitor and record the scrubber liquid flow rate (daily block average)
AA-010 AA-011	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.41	Hours of operation	Monitor and records hours of operation and dates on site
		5.B.10	Fuel usage	Monitor and record amount of fuel combusted each day
AA-021	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.42	Scrubbing liquid flow rate and pH	Monitor and record scrubbing liquid flow rate and pH (daily block average)

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-021 AA-041	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.25	Maintenance	Perform regulatory maintenance at least monthly
		5.B.26		Maintain equipment necessary to repair/overhaul control device
AA-052	40 CFR 63.6625(f) and 63.6655(f)(1), Subpart ZZZZ 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.43	Hours of operation	Install non-resettable hour meter and record hours of operation (emergency and non-emergency)
AA-052	40 CFR 63.6655(a)(1), (2), (5), (e)(2) and 63.6660, Subpart ZZZZ	5.B.44	Records	General recordkeeping
AA-050 AA-052 AA-053 AA-054 AA-055	40 CFR 60.4209(a), 60.4214(b), Subpart IIII 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.45	Hours of operation	Install non-resettable hour meter and record hours of operation (emergency and non-emergency)
AA-003	40 CFR 64.3(a), (b), and 64.6(c), Compliance Assurance Monitoring	5.B.46	SO_2	Scrubber liquid flow rate and pH
AA-006			PM_{10} SO_2	Scrubber liquid flow rate, pressure differential, and pH
AA-003 AA-006	40 CFR 64.7(b) and (c), CAM	5.B.47	Operation & Maintenance	Operation and maintenance requirements for monitoring system(s)
	40 CFR 64.7(d), CAM	5.B.48	Corrective Action	Corrective Action response to an excursion/exceedance of a CAM indicator
	40 CFR 64.8, CAM	5.B.49	QIP	Upon request by DEQ, develop a Quality Improvement Plan (QIP)
	40 CFR 64.9(b), CAM	5.B.50	CAM Records	Recordkeeping

5.B.1 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee shall demonstrate continuous compliance with the applicable emission limits by installing, calibrating, certifying, operating, and maintaining a continuous monitoring system (CMS) as specified in the applicable requirements of 40 CFR 63.453(b) through (m). The CMS shall include a continuous recorder and be operated to measure the appropriate parameters determined in accordance with Condition 5.B.2 to comply with the condensate applicability requirements specified in Condition 3.B.6.

(Ref.: 40 CFR 63.453(a) and (i), Subpart S)

5.B.2 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee shall conduct daily monitoring of the site specific parameter(s) established in accordance with 40 CFR 63.453(n) and addressed in the facility's Condensate Treatment IPT document, maintained at the facility. The permittee shall conduct a performance test each quarter within 45 days after the beginning of each quarter. The performance test conducted in the first quarter (annually) shall be performed for total HAP as specified in 40 CFR 63.457(g) and meet the mass removal emission limit specified in Condition 3.B.6. The remaining quarterly performance tests shall be performed as specified for the first quarter performance test except that the permittee may use the methanol procedure in 40 CFR 63.457(l)(2) and the value of *r* determined during the first quarter test instead of measuring the additional HAP to determine a new value of *r*.

(Ref.: 40 CFR 63.453(j)(2) and (3), Subpart S)

5.B.3 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee shall demonstrate compliance with the standards for enclosures and closed vent systems in accordance with the following:

(a) For each enclosure opening, a visual inspection of the closure mechanism specified in 40 CFR 63.450(b) shall be performed at least once every 30 days to ensure the opening is maintained in the closed position and sealed.

(b) Each closed-vent system required by 40 CFR 63.450(a) shall be visually inspected every 30 days. The visual inspection shall include inspection of ductwork, piping, enclosures, and connections to covers for visible evidence of defects.

(c) For positive pressure closed-vent systems or portions of closed-vent systems, demonstrate no detectable leaks as specified in 40 CFR 63.450(c) measured annually by the procedures in 40 CFR 63.457(d).

(d) Demonstrate annually that each enclosure opening is maintained at negative pressure as specified in 40 CFR 63.457(e).

(e) The valve or closure mechanism specified in 40 CFR 63.450(d)(2) shall be inspected at least once every 30 days to ensure that the valve is maintained in the closed position and the emission point gas stream is not diverted through the bypass line.

(f) If an inspection required by paragraphs (a) through (e) identifies visible defects in ductwork, piping, enclosures or connections to covers required by 40 CFR 63.450, or if an instrument reading of 500 parts per million by volume or greater above background is measured, or if enclosure openings are not maintained at negative pressure, then the following corrective actions shall be taken as soon as practicable.

(1) A first effort to repair or correct the closed-vent system shall be made as soon as practicable but no later than 5 calendar days after the problem is identified.

(2) The repair or corrective action shall be completed no later than 15 calendar days after the problem is identified. Delay of repair or corrective action is allowed if the repair or corrective action is technically infeasible without a process unit shutdown or if the owner or operator determines that the emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

(Ref.: 40 CFR 63.453(k), Subpart S)

5.B.4 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee shall monitor the condensate closed collection system in accordance with the following:

(a) Each pulping process condensate closed collection system shall be visually inspected every 30 days and shall comply with the inspection and monitoring requirements specified in 40 CFR 63.964, Subpart RR, except:

(1) The permittee shall comply with the Subpart S recordkeeping requirements instead of those requirements specified in 40 CFR 63.964(a)(1)(vi) and (b)(3) of Subpart RR.

(2) The permittee shall comply with the inspection and monitoring requirements for closed-vent systems and control devices in Conditions 5.B.2 and 5.B.3 instead of the requirements specified in 63.964(a)(2) of Subpart RR.

(b) Each condensate tank used in the closed collection system shall be operated with no detectable leaks as specified in 40 CFR 63.446(d)(2)(i) measured initially and annually by the procedures specified in 40 CFR 63.457(d).

(c) If an inspection identifies visible defects in the closed collection system, or if an instrument reading of 500 parts per million or greater above background is measured, then corrective actions specified in 40 CFR 63.694(b) of Subpart RR shall be taken.

(Ref.: 40 CFR 63.453(l), Subpart S)

5.B.5 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, if the permittee needs to reestablish the operating parameters to be monitored under 40 CFR 63.453, the permittee shall use the following procedures:

(a) Continuously record the operating parameter during the performance test;

(b) Make determinations based on the control performance and parameter data monitored during the performance test, supplemented if necessary by engineering assessments and the manufacturer's recommendations;

(c) Provide for DEQ approval the rationale for selecting the monitoring parameters necessary to comply with Condition 5.B.1; and

(d) Provide for DEQ approval the rationale for the selected operating parameter value, and monitoring frequency, and averaging time. Include all data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate compliance with the applicable emission standard.

(Ref.: 40 CFR 63.453(n), Subpart S)

5.B.6 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee shall operate all control devices in a manner consistent with the minimum or maximum (as appropriate) operating parameter value or procedure required to be monitored in Subpart S. Except as provided in Condition 5.B.7, the operation of the control device outside the established parameters or failure to perform procedures required by Subpart S shall constitute a violation of the applicable emission standard of Subpart S and should be reported as a period of excess emissions.

(Ref.: 40 CFR 63.453(o), Subpart S)

5.B.7 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee may choose to conduct a performance test to demonstrate compliance with the applicable emission limit whenever a monitoring parameter excursion occurs. A monitoring parameter excursion occurs whenever the monitoring parameters specified in Condition 5.B.2 are below the minimum operating parameter values or above the maximum operating parameter values established in Condition 5.B.5.

(a) After the beginning of the monitoring parameter excursion, the permittee shall meet the following requirements as soon as practical:

(1) Before taking the steps in (2) or (3) below, the permittee shall conduct all sampling and measurements necessary to determine compliance with the applicable emission limit in Condition 3.B.6.

(2) Steps shall be taken to repair or adjust the operation of the process to end the parameter excursion period.

(3) Steps shall be taken to minimize total HAP emissions to the atmosphere during the parameter excursion period.

(b) The parameter excursion is not a violation of the applicable emission standard if the results of the performance test conducted using the procedures in (1) through (4) below demonstrate compliance with the applicable emission limit in Condition 3.B.6.

(1) The permittee shall conduct a performance test as specified in 40 CFR 63.457(l)(2) using the monitoring data specified in Condition 5.B.2 that coincides with the time of the parameter excursion. No maintenance or changes shall be made to the open biological treatment system after the beginning of a parameter excursion that would influence the results of the performance test.

(2) If the results of the performance test demonstrate compliance with the applicable emission limit in Condition 3.B.6, then the parameter excursion is not a violation of the applicable emission limit.

(3) If the results of the performance test do not demonstrate compliance with the applicable emission limit in Condition 3.B.6 because the total HAP mass entering the open biological treatment system is below the level needed to demonstrate compliance with the applicable emission limit, then the permittee shall perform the following comparisons:

(i) If the value of f_{bio} (MeOH) determined during the performance test is within the range of values established during the initial and subsequent performance tests approved by the DEQ, then the parameter excursion is not a violation of the applicable standard.

(ii) If the value of f_{bio} (MeOH) determined during the performance test is not within the range of values established during the initial and subsequent performance tests approved by the DEQ, then the parameter excursion is a violation of the applicable standard.

(4) The permittee shall prepare and keep a written record specifying the results of the performance test specified in (b).

(c) If the permittee determines that performing the required procedures under paragraph (b) for a non-thoroughly mixed open biological system would expose a worker to dangerous, hazardous, or otherwise unsafe conditions, all of the following procedures shall be performed:

(1) Calculate the mass removal or percent reduction value using the procedures specified in 40 CFR 63.457(l) except the value for f_{bio} (MeOH) shall be determined using the procedures in Appendix E to 40 CFR Part 63.

(2) Repeat the procedures in paragraph (c)(1) of this section for every day until the unsafe conditions have passed.

(3) A parameter excursion is a violation of the standard if the percent reduction or mass removal determined in paragraph (c)(1) of this section is less than the percent reduction or mass removal standards specified in Condition 3.B.6, as appropriate, unless the value of f_{bio} (MeOH) determined using the procedures in Appendix E to 40 CFR Part 63, as specified in paragraph (c)(1), is within

the range of f_{bio} (MeOH) values established during the initial and subsequent performance tests previously approved by the DEQ.

(4) The determination that there is a condition that exposes a worker to dangerous, hazardous, or otherwise unsafe conditions shall be documented according to requirements in 40 CFR 63.454(e) and reporting in 40 CFR 63.455(f).

(5) The requirements of paragraphs (a) and (b) shall be performed and met as soon as practical but no later than 24 hours after the conditions have passed that exposed a worker to dangerous, hazardous, or otherwise unsafe conditions.

(Ref.: 40 CFR 63.453(p), 63.454(f), and 63.457(l)(2), Subpart S)

5.B.8 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee shall keep the following records:

(a) For each enclosure opening, closed vent system, and closed collection system, the permittee shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and shall record the following information for each inspection:

(1) Date of inspection;

(2) The equipment type and identification;

(3) Results of negative pressure tests for enclosures;

(4) Results of leak detection tests;

(5) The nature of the defect or leak and method of detection (i.e., visual inspection or instrument detection);

(6) The date the defect or leak was detected and the date of each attempt to repair the defect or leak;

(7) Repair methods applied in each attempt to repair the defect or leak;

(8) The reason for the delay if the defect or leak in not repaired within 15 days of discovery;

(9) The expected date of successful repair of the defect or leak if the repair is not completed within 15 days;

(10) The date of the successful repair of the defect or leak;

(11) The position and duration of opening of bypass line valves and the condition of any valve seals; and

(12) The duration of the use of bypass valves on computer controlled valves.

(b) The permittee shall maintain the following records concerning malfunctions:

(1) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

(2) Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition 3.B.2, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(Ref.: 40 CFR 63.454(a), (b), and (g), Subpart S)

5.B.9 For Emission Point AA-003, the permittee shall demonstrate compliance with the SO_2, NO_x, CO, and VOC (as carbon) emission limits of Condition 3.B.9 by conducting performance testing in accordance with EPA Reference Methods within two years of permit issuance while operating within 80% of the maximum capacity of the Lime Kiln. A subsequent performance test must be conducted no more than two years after the previous performance test unless a waiver of the test is requested by the permittee. To waive a subsequent performance test for a given pollutant, the permittee must demonstrate that (1) average emissions are at or below 75 percent (%) of the short term (lb/hr and lb/unit throughput or heat input) emission limits, (2) no one-hour test run exceeds the short-term emission limits, and (3) there have been no changes to the operation of the unit or air pollution control equipment that could increase emissions. The permittee may waive the following performance test(s) upon submittal of this information to DEQ prior to the next test due date; however, only one test may be waived such that a subsequent performance test must take place within four years following the previous test. If a subsequent performance test does not qualify for a waiver, testing shall revert back to every two years until such time as the permittee can demonstrate that a test meets conditions (1) through (3) for a waiver.

The permittee shall demonstrate compliance with the PM and PM_{10} (filterable) emission limits of Condition 3.B.9 by conducting performance testing in accordance with the applicable requirements of the 40 CFR 63 Subpart MM in Condition 5.B.15, unless the permittee opts use a different test method (e.g., EPA Method 201A). For demonstrating compliance with PM_{10}, if the permittee elects to use EPA Reference Method 5 to determine filterable PM in lieu of Method 201A, the permittee must assume filterable PM_{10} is equal to the total filterable PM measured by Method 5. Performance testing may be conducted in conjunction with testing required by other applicable federal standards, as long as such coordination is addressed in the test protocol.

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

5.B.10 For Emission Points AA-003, AA-005, AA-006, AA-010, and AA-011, the permittee shall maintain records documenting the type(s) and amount of fuel used in each unit. In addition to the fuel usage records, the permittee shall also keep the following specific records:

(a) For Emission Point AA-003, document the sulfur content of the fuel oil and keep a rolling 12-month total of petroleum coke burned in tons per year. The petroleum coke records shall also document the sulfur and nitrogen content of the coke and the methodology for determining sulfur and nitrogen content.

(b) For Emission Points AA-003 and AA-006, document the 12-month rolling total of on-specification used oil that is fired in both units combined in gallons per year.

(c) For Emission Point AA-006, document the sulfur content of the fuel oil burned and keep a daily record of amount of untreated cotton seed and/or nonhazardous pesticide treated cotton seed burned;

(d) For Emission Point AA-006, record the hourly feed rate of tire-derived fuel when such fuel is burned and keep records for each shipment of tire-derived fuel demonstrating that it is received from a source regulated under an established tire collection program; and

(d) For Emission Points AA-010 and AA-011, the permittee shall record and maintain records of the amount of natural gas combusted during each day.

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

5.B.11 For Emission Points AA-003 and AA-006, the permittee shall keep records of each shipment of used oil received that meets the fuel specifications under 40 CFR 279.11. These records shall include:

(a) Name and address of the transporter delivering the shipment (including the EPA ID number);

(b) Quantity of used oil delivered;

(c) Date of shipment or delivery; and

(d) A cross reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required in 40 CFR 279.72(a).

The permittee shall keep these records for three years from the date of the record.

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

5.B.12 For Emission Point AA-003, the permittee shall monitor and record the pH of the scrubbing liquid in accordance with the requirements of the CAM Plan in Appendix D. However, when the permittee is not combusting petroleum coke, monitoring must be conducted on an at least weekly basis, rather than daily, in order to indicate compliance with the SO_2 emission limit. An exceedance is defined as a weekly pH value greater than two (2.0) standard units below the average pH of the liquid during the most recent compliance test.

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

5.B.13 For Emission Point AA-003, the permittee shall continuously monitor and record the three hour rolling average temperature for the hot end of the lime kiln to indicate compliance with the NO_x emission limits. An excursion is defined as any three hour average exceeding 50 °F of the average value for the most recent compliance test and shall result in immediate corrective action to reduce the operating temperature to the appropriate level.

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

5.B.14 For Emission Point AA-003, the permittee shall install, calibrate, maintain, and operate a continuous parameter monitoring system (CPMS) that can be used to determine and record the pressure drop across the scrubber and the scrubbing liquid flow rate at least once every successive 15-minute period using the procedures in 40 CFR 63.8 and in accordance with the following specifications:

(a) The monitoring device used for the continuous measurement of the pressure drop of the gas stream across the scrubber must be certified by the manufacturer to be accurate within a gage pressure of ±500 pascals (±2 inches of water gage pressure); and

(b) The monitoring device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within ±5 percent of the design scrubbing liquid flow rate.

Monitoring data recorded during periods of unavoidable CMS breakdown, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high level adjustments must not be included in any computed data average.

(Ref.: 40 CFR 63.864(e)(10) and (h), Subpart MM)

5.B.15 For Emission Points AA-003, AA-005, and AA-007, the permittee shall conduct performance tests for PM in accordance with the procedures in 40 CFR 63.865(b)(1) through (6) within five (5) years following the previous performance test. As of the date of permit issuance, the last performance test was conducted between August 18-20, 2020. The performance tests shall be conducted based on representative performance of the source for the period being tested. Representative conditions exclude startup and shutdown. The permittee may not conduct performance tests during periods of malfunction. The permittee must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation.

(Ref.: 40 CFR 63.863(c) and 63.865, Subpart MM)

5.B.16 For Emission Point AA-003 and AA-005, the permittee shall keep the following applicable records:

(a) Records of black liquor solids firing rate in units of Mg/d or tons/d for the recovery boiler;

(b) Records of Calcium Oxide (CaO) production rates in units of Mg/d or tons/d for the lime kiln;

(c) Records of all parameter monitoring data, including any period when the operating parameter levels were inconsistent with the levels established during the performance test, with a brief explanation of the cause of the monitoring exceedance, the time the monitoring exceedance occurred, the time corrective action was initiated and completed, and the corrective action taken;

(d) Record and documentation of supporting calculations for compliance determinations;

(e) Records of parameter operating limits established for each affected unit;

(f) Records demonstrating compliance with the requirement in Condition 5.B.23 to maintain proper operation of the ESP's AVC.

(g) Records of all failures to meet an applicable standard, which includes an emission limit or an opacity or CPMS operating limit. For each failure, record the date, start time, and duration of each failure. Additionally, the permittee shall keep a record of the following for each failure:

(1) For a failure to meet an emission limit, record an estimate of the quantity of each regulated pollutant emitted over the emission limit and a description of the method used to estimate the emissions.

(2) For a failure to meet an operating limit, maintain sufficient information to estimate the quantity of each regulated pollutant emitted over the emission limit. This information must be sufficient to provide a reliable emissions estimate if requested by the DEQ.

(h) Records of all actions taken to minimize emissions and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(Ref.: 40 CFR 63.866(c)(1)-(5), and (d), Subpart MM)

5.B.17 For Emission Points AA-003, AA-005, and AA-007, the permittee shall keep CMS data quality assurance procedures consistent with the requirements of 40 CFR 63.8(d)(1) and (2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of Subpart MM, to be made available for inspection, upon request, by the DEQ. If the performance evaluation plan in 40 CFR 63.8(d)(2) is revised, the permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the DEQ, for a period of five (5) years after each revision to the plan. The program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2).

(Ref.: 40 CFR 63.864(f), Subpart MM)

5.B.18 For Emission Points AA-003 and AA-005, the permittee shall continuously monitor the concentration of TRS and oxygen in the flue gas by installing, operating, and maintaining continuous monitoring devices meeting the requirements of Performance Specifications 5 and 3, respectively, in Appendix B to 40 CFR 60. The permittee shall calculate and record, on a daily basis, the 12-hour average TRS concentration and O_2 concentration for the two consecutive operating periods of each operating day. Each 12-hour average shall be determined as the arithmetic mean of the appropriate 12 continuous 1-hour average concentrations. Each 12-hour average TRS concentration shall be corrected to 10% or 8% O_2, as appropriate for the applicable emission limit, using the equation defined in 40 CFR 60.284(c)(3).

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.B(6)(c) and (e).)

5.B.19 For Emission Point AA-005, the permittee shall demonstrate compliance with NO_x, CO, and VOC (as carbon) emission limits of Condition 3.B.16 by conducting performance testing in accordance with EPA Reference Methods within two years of permit issuance while operating within 80% of the maximum capacity of the Recovery Boiler. A subsequent performance test must be conducted no more than two years after the previous performance test unless a waiver of test is requested by the permittee. To waive a subsequent performance test for a given pollutant, the permittee must demonstrate that (1) average emissions are at or below 75 percent (%) of the short-term (lb/hr and lb/unit throughput or heat input) emission limits, (2) no one-hour test run exceeded the short-term emission limits, and (3) there have been no changes to the operation of the unit or air pollution control equipment that could increase emissions. The permittee may waive the following performance test(s) upon submittal of this information to DEQ prior to the next test due date; however, only one test may be waived such that a subsequent performance test must take place within four years following the previous test. If a subsequent performance test does not qualify for a waiver, testing shall revert back to every two years until such time as the permittee can demonstrate that a test meets conditions (1) through (3) for a waiver.

The permittee shall demonstrate compliance with the PM and PM_{10} (filterable) emission limits of Condition 3.B.16 by conducting performance testing in accordance with the applicable requirements of the 40 CFR 63, Subpart MM in Condition 5.B.15, unless the permittee opts to use a different test method (e.g., EPA Method 201A). For demonstrating compliance with PM_{10}, if the permittee elects to use EPA Reference Method 5 to determine filterable PM in lieu of Method 201A, the permittee must assume filterable PM_{10} is equal to the total filterable PM measured by Method 5. The permittee shall monitor and record the continuous opacity monitoring system (COMS) data during each test run to demonstrate compliance with the opacity standard in Conditions 3.A.1 and 3.A.2. Performance testing may be conducted in conjunction with testing required by other applicable federal standards, as long as such coordination is addressed in the test protocol.

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

5.B.20 For Emission Point AA-005, the permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) to monitor SO_2 emissions from the stack. The CEMS will measure and record each 12-hour average stack concentration corrected to 8 percent oxygen. The CEMS shall meet the applicable Performance Specifications for SO_2 and O_2, respectively, in Appendix B to 40 CFR Part 60.Any 12-hour average concentration exceeding 230 ppmvd corrected to 8 percent oxygen shall be considered a deviation and reported in accordance with Condition 5.A.4.

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

5.B.21 For Emission Point AA-005, the permittee shall develop and maintain an Operation and Maintenance (O&M) Plan for the electrostatic precipitator (ESP). The plan shall include, but is not limited to the following:

(a) An Operational Checklist (i.e., number of fields energized, minimum voltage level);

(b) Operational procedures; and

(c) Documentation of maintenance schedules and maintenance activities performed.

The permittee shall maintain the O&M Plan and any associated records of operational and/or maintenance activities associated with the plan on-site in accordance with Condition 5.A.3. All such records shall be made available upon request by DEQ personnel.

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

5.B.22 For Emission Point AA-005, the permittee shall install, calibrate, maintain, and operate a COMS in accordance with Performance Specification 1 in Appendix B, 40 CFR 60 and the provisions of 40 CFR 63.6(h) and 63.8 and the following:

(a) Each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(b) Each 6-minute COMS data average must be calculated as the average of 36 or more data points, equally spaced over each 6-minute period.

Monitoring data recorded during periods of unavoidable CMS breakdown, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high level adjustments must not be included in any computed data average.

(Ref.: 40 CFR 63.864(d)(3),(4) and 63.864 (h), Subpart MM)

5.B.23 For Emission Point AA-005, the permittee shall maintain proper operation of the ESP's automatic voltage control (AVC).

(Ref.: 40 CFR 63.864(e)(1), Subpart MM)

5.B.24 For Emission Point AA-006, the permittee shall demonstrate compliance with SO_2 and VOC (as carbon) emission limits of Conditions 3.B.22 by conducting performance testing in accordance with EPA Reference Methods within two years of permit issuance while operating within 80% of the maximum capacity of the Power Boiler. A subsequent performance test must be conducted no more than two years after the previous performance test unless a waiver of the test is requested by the permittee. To waive a subsequent performance test for a given pollutant, the permittee must demonstrate that (1) average emissions are at or below 75 percent (%) of the short-term (lb/hr and lb/MMBtu) emission limits, (2) no one-hour test run exceeds the short-term emission limits, and (3) there have been no changes to the operation of the unit or air pollution control equipment that could increase emissions. The permittee may waive the following performance test(s) upon submittal of this information to DEQ prior to the next test due date; however, only one test may be waived such that a subsequent performance test must take place within four years following the previous test. If a subsequent performance test does not qualify for a waiver, testing shall revert back to every two years until such time as the permittee can demonstrate that a test meets conditions (1) through (3) for a waiver. The permittee shall demonstrate compliance with the NO_x and CO emission limits of Condition 3.B.22 by performance testing annually in accordance with EPA Reference Methods.

The permittee shall demonstrate compliance with the PM and PM_{10} (filterable) emission limits of Condition 3.B.21 by conducting performance testing in accordance with the applicable requirements of the 40 CFR 63 Subpart DDDDD in Condition 5.B.29. The boiler shall be operated within ±10% of the highest hourly average operating load established in accordance with 40 CFR Part 63, Subpart DDDDD. For demonstrating compliance with PM_{10}, if the permittee elects to use EPA Reference Method 5 to determine filterable PM in lieu of Method 201A, the permittee must assume filterable PM_{10} is equal to the total filterable PM measured by Method 5. Performance testing may be conducted in conjunction with testing required by other applicable federal standards, as long as such coordination is addressed in the test protocol.

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

5.B.25 For Emission Points AA-021 and AA-041, the permittee shall perform regular maintenance on the pollution control equipment each month or more often if necessary. The permittee shall keep records of this maintenance in log form and made available for review upon request during any inspection visit by DEQ personnel.

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

5.B.26 For Emission Points AA-021 and AA-041, the permittee shall maintain on hand at all times sufficient equipment as is necessary to repair and/or overhaul the pollution control equipment. In the event of a failure of the pollution control equipment, the permittee shall cease operations until such time as repairs are made and the proper efficiency of the pollution control equipment is restored.

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

5.B.27 For Emission Point AA-006, the permittee shall develop a site-specific monitoring plan according to the requirements of 40 CFR 63.7505(d)(1) through (4) for the use of any CEMS, COMS, or CPMS. The permittee shall also develop a site-specific stack test plan that includes a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(Ref.: 40 CFR 63.7505(d), 63.7520(a), Subpart DDDDD)
(Ref.: 40 CFR 63.7(c), Subpart A)

5.B.28 For Emission Point AA-006, the permitted shall keep records of monthly fuel use, including the types(s) and amount(s) of each to demonstrate lower fuel input of chlorine and/or mercury than the maximum values calculated during the last performance test. If the permittee elects to demonstrate compliance with the HCl and/or mercury emission standards of Condition 3.B.26 via Fuel Analysis for Emission Point AA-006, the permittee shall keep records of monthly fuel use, including the type(s) of fuel and amount(s) of each to demonstrate that all fuel types and mixtures of fuels burned would result in equal to or lower emissions of HCl and/or mercury than the applicable emission limit for each pollutant.

(Ref.: 40 CFR 63.7540(a)(2) and 63.7555(d)(1), Subpart DDDDD)

5.B.29 For Emission Point AA-006, the permittee shall conduct performance tests for HCl, Hg, CO, and PM (filterable) on an annual basis. Subsequent tests must be no more than 13 months after the previous performance test unless the performance tests for a given pollutant for at least two consecutive years show that emission are at or below 75 percent (%) of the emission limit and there have been no changes to the operation of the boiler or air pollution control equipment that could increase emissions, the permittee may choose to conduct performance tests for the pollutant every third year (each subsequent test must be conducted no more than 37 months after the previous test). If a performance test for a pollutant indicates the emissions are in excess of 75 percent (%) of the emission limit, the permittee must resume annual testing until such time the performance tests over a two-year period fall below 75 percent (%) of the emission limit. All performance tests shall be conducted in accordance with Table 5 of Subpart DDDDD and at representative load conditions while burning the type of fuel mixture that has the highest concentration of each pollutant. During each performance test, the permittee shall establish operating limits according to 40 CFR 63.7530 and Table 7 of Subpart DDDDD and conduct CMS performance evaluations in accordance with 63.7525.

Each performance test shall consist of three separate test runs which comply with the minimum applicable sampling times or volumes specified in Table 2 of Subpart DDDDD. The permittee shall use the F-Factor methodology and equations from sections 12.2 and 12.3 of EPA Method 19 in 40 CFR 60, Appendix A-7 to convert the measured PM concentrations, HCl concentrations, and mercury concentrations that result from the performance test to lb/MMBtu heat input emission rates.

In lieu of Hg and HCl performance testing, the permittee may choose to demonstrate compliance using monthly fuel sampling and analysis according to 40 CFR 63.7521 for each type of fuel burned. The fuel analysis may be completed any time within the calendar month as long as the analysis is separated from the previous analysis by at least 14 calendar days (not applicable for multiple samples taken within the same month). If each of 12 consecutive monthly fuel analyses demonstrates 75 percent (%) or less of the compliance level, the permittee may decrease the fuel analysis frequency to quarterly for that fuel. If a quarterly sample exceeds 75 percent (%) of the compliance level, the permittee must resume monthly fuel sampling.

(Ref.: 40 CFR 63.7510(a), (b), 63.7515(a)-(c), (e), 63.7520(b), (c), and (e), Subpart DDDDD)

5.B.30 If the permittee elects to demonstrate compliance for the HCl and/or mercury emission standards of Condition 3.B.26 via Fuel Analysis for Emission Point AA-006, the permittee shall conduct fuel analyses in accordance with 40 CFR 63.7521 and follow the procedures below:

(a) Determine the fuel mixture that could be burned in the boiler that would result in the maximum emission rates of the pollutants that the permittee elects to demonstrate compliance through fuel analysis.

(b) Determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided t-statistic test

P90 = mean + (SD * t)

where P90 is the 90th percentile confidence level pollutant concentration in lb/MMBtu, mean is the arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to 40 CFR 63.7521, in lb/MMBtu, SD is the standard deviation of the mean of pollutant concentration in the fuel samples analyzed according to 40 CFR 63.7521 in lb/MMBtu (SD is calculated as the sample standard deviation divided by the square root of the number of samples; and t is the distribution critical value for 90th percentile (t0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a t-Distribution Critical Value Table.

(c) Demonstrate compliance with the applicable emission limit for HCl using the following equation

$$HCl = \sum_{i=1}^{n} \left(Ci90 \times Qi \times 1.028 \right)$$

Where HCl is the HCl emission rate from the boiler in lb/MMBtu; Ci90 is the 90th percentile confidence level concentration of chlorine in fuel type in lb/MMBtu as calculated in the equation in paragraph (b); Qi is the fraction of total heat input from fuel type based on the fuel mixture that has the highest content of chlorine (the actual fraction of the fuel burned during the month should be used for continuous

compliance); n is the number of different fuel types burned in the boiler for the mixture that has the highest content of chlorine; and 1.028 is the molecular weight ration of HCl to chlorine.

(d) Demonstrate compliance with the applicable emission limit for mercury using the following equation

$$Mercury = \sum_{i=1}^{n} (Hgi90 \times Qi)$$

where Mercury is the mercury emission rate from the boiler in lb/MMBtu; Hgi90 is the 90th percentile confidence level concentration of mercury in fuel in lb/MMBtu as calculated in the equation in paragraph (b); Qi is the fraction of total heat input from fuel type based on the fuel mixture that has the highest mercury content (the actual fraction of the fuel burned during the month should be used for continuous compliance); and n is the number of different fuel types burned in the boiler for the mixture that has the highest mercury content.

(Ref.: 40 CFR 63.7530(c)(1)-(4), Subpart DDDDD)

5.B.31 For Emission Point AA-006, the permittee shall demonstrate continuous compliance with the CO emission limits by establishing the minimum oxygen level. The minimum oxygen level shall be set at the lower of the minimum values established during the performance tests by collecting oxygen data every 15 minutes during the entire period of the performance test(s), determining the hourly average oxygen concentration by computing the hourly averages using all of the 15-minute readings taken during each performance test, and determine the lowest hourly average established during the performance test as the minimum operating limit. The oxygen analyzer system shall be installed, calibrated, maintained, and operated in accordance with the manufacturer's recommendations. The permittee shall confirm or reestablish operating limits for the monitoring parameters during the initial and subsequent performance tests required in Condition 5.B.29.

(Ref.: 40 CFR 63.7525(a), 63.7530(b)(4)(viii), 63.7575, and Table 7, Subpart DDDDD)

5.B.32 For Emission Point AA-006, the permittee shall demonstrate continuous compliance with the PM emission limit by installing, operating, and maintaining continuous monitoring systems to measure the pressure drop across the scrubber and the liquid flow rate in accordance with the following:

Flow Monitoring System

(a) Install the flow sensor and other necessary equipment in a position that provides a representative flow;

(b) Use a flow sensor with a measurement sensitivity of no greater than 2 percent (%) of the design flow rate;

(c) Minimize, consistent with good engineering practices, the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances; and

(d) Conduct a flow monitoring system performance evaluation in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.

Pressure Monitoring System

(e) Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (e.g., PM scrubber pressure drop);

(f) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion consistent with good engineering practices;

(g) Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent (%) of the pressure monitoring system operating range, whichever is less;

(h) Perform checks at least once each process operating day to ensure pressure measurements are not obstructed (e.g., check for pressure tap pluggage daily);

(i) Conduct a performance evaluation of the pressure monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than annually; and

(j) If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with the monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in the monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

(Ref.: 40 CFR 63.7525(e) and (f), Subpart DDDDD)

5.B.33 For Emission Point AA-006, the permittee shall collect data in accordance with the following and the site-specific monitoring plan required in Condition 5.B.27:

(a) The permittee shall operate monitoring systems and collect data at all required intervals at all times that the boiler is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods, and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee is required to complete monitoring system repairs in response to monitoring system

malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(b) The permittee may not use data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. The permittee must record and make available upon request the results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with the site-specific monitoring plan. The permittee must use all data collected during all other periods in assessing compliance and the operation of the control device and associated control system.

(c) Except during periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities, failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods of startup and shutdown, when the monitoring system is out-of-control as specified in the site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out-of-control, or while conducting required monitoring system quality assurance or quality control activities. The permittee must calculate monitoring results using all other monitoring data collected while the process is operating.

(Ref.: 40 CFR 63.7535, Subpart DDDDD)

5.B.34 For Emission Point AA-006, the permittee shall keep the following records in a form suitable and readily available for expeditious review:

(a) A copy of each notification and report submitted to comply with Subpart DDDDD, including all documentation supporting an Initial Notification of Compliance Status or semiannual report submitted in accordance with Condition 5.A.4.

(b) Records of all performance tests, fuel analyses, or other compliance demonstrations and performance evaluations.

(c) For each CEMS, COMS, and CPMS, the permittee must keep records according to the following:

(1) Records described in 40 CFR 63.10(b)(2)(vii) through (xi);

(2) Monitoring data for COMS during a performance evaluation as required in 40 CFR 63.6(h)(7)(i) and (ii).

(3) Previous versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).

(4) Records of the date and time each deviation started and stopped.

(d) Records of monthly fuel use, including the type(s) of fuel and amount(s) used.

(e) Records required in Table 8 of Subpart DDDDD including records of all monitoring data and calculated averages for applicable operating limits, such as opacity and operating load, to show continuous compliance with each applicable emission and operating limit.

(f) If the permittee chooses to stack test less frequently than annually per Condition 5.B.29, the permittee must keep a record that documents emissions in the previous stack tests were less than 75 percent (%) of the applicable emission limit and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(g) Records of the occurrence and duration of each malfunction of the boiler or associated air pollution control and monitoring equipment.

(h) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions, including corrective actions to restore the malfunctioning boiler, air pollution control or monitoring equipment to its normal use or usual manner of operation.

(i) Records of the calendar date, time, occurrence, and duration of each startup and shutdown.

(j) Records of the type(s) and amount(s) of fuels used during each startup and shutdown.

These records shall be kept for a period of five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. They shall be kept on-site, or they must be accessible from on-site, for at least two (2) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 60.10(b)(1). The records may be kept off-site for the remaining three (3) years.

(Ref.: 40 CFR 63.7555(a), (b), (c), (d)(1), (3)-(7), (9), (10) and 63.7560, Subpart DDDDD)

5.B.35 For Emission Point AA-007, the permittee shall maintain records to document daily the mass of black liquor solids (BLS) fed to the recovery boiler in tons per day.

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

5.B.36 For Emission Point AA-007, the permittee shall install, calibrate, maintain, and operate a CPMS that can be used to determine and record the scrubbing liquid flow rate and a device to measure the fan amperage. The CPMS used for each shall take a reading and record the value once every successive 15-minute period using the procedures in 40 CFR 63.8(c) and in accordance with the following:

(a) A monitoring device used for continuous measurement of the scrubbing liquid flow rate must be certified by the manufacturer to be accurate within ±5 percent of the design scrubbing liquid flow rate.

(b) In accordance with the EPA-approved alternative included in Appendix C of the permit, the permittee shall establish the minimum fan amperage value to be monitored by determining the no-load amperage using manufacturer's specifications or by performing a no-load test and then by establishing the lowest 1-hour average fan amperage values associated with each test run demonstrating compliance with the PM emission limit. The permittee shall then average the no-load amperage and lowest 1-hour average fan amperage value associated with a test run to establish the minimum fan amperage operating limit. Documentation concerning how the minimum fan amperage value was determined shall be retained on-site. Continuous compliance shall be determined on a 3-hour average.

The permittee shall establish or confirm operating limits for the monitoring parameters during the initial and subsequent performance tests required in Condition 5.B.15. The parameters must be continuously monitored during each performance test and data obtained during the test(s) may be used to reestablish the operating ranges. The permittee shall keep records of all parameter monitoring data, including any periods when the levels were inconsistent with the levels established during the performance test, with a brief explanation of the cause of the monitoring exceedance, the time the monitoring exceedance occurred, the time corrective action was initiated and completed, and the corrective action taken. Monitoring data recorded during periods of unavoidable CMS breakdown, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high level adjustments must not be included in any computed data average.

(Ref.: 40 CFR 63.864(e)(10)(ii)-(iii),(j) and 63.866(c)(3), Subpart MM)

5.B.37 For Emission Points AA-003, AA-005, and AA-007, the permittee shall take corrective action if the any of the following monitoring exceedances occur during times when spent pulping liquor or lime mud is fed (as applicable) and shall be in violation of the applicable standards of Subpart MM as outlined below. Corrective action can include completion of transient startup and shutdown conditions as expediently as possible.

(a) For AA-003 and AA-007, any 3-hour average of a monitored operating parameter value below the minimum operating limit established pursuant to Conditions 5.B.14 and 5.B.36, respectively, with exception of pressure drop during periods of startup and shutdown, is considered a monitoring exceedance. A violation of the applicable standard is defined as six or more 3-hour average values within any semiannual reporting period that do not meet the operating limit. For purposes of determining the number of exceedances, no more than one exceedance will be attributed in any given 24-hour period.

(b) For AA-005, any opacity average of ten consecutive 6-minute averages resulting in greater than 20 percent opacity is considered a monitoring exceedance. A violation of the applicable standard is defined as opacity greater than 35 percent for two (2) percent or more of the operating time within any semiannual reporting period.

The permittee must maintain records of any occurrence when a corrective action is required and when a violation is noted.

(Ref.: 40 CFR 63.864(k)(1)(i)-(ii), (2)(i),(iv), (3), and 63.866(b), Subpart MM)

5.B.38 For Emission Point AA-007, the permittee shall keep records in accordance with the following:

(a) Records and documentation of supporting calculations for compliance determinations made in Condition 5.B.15.

(b) Records of the parameter operating limits established for the affected source.

(c) Records of all failures to meet an applicable standard, which includes an emission limit or an opacity or CPMS operating limit. For each failure, record the date, start time, and duration of each failure. Additionally, the permittee shall keep a record of the following for each failure:

(1) For a failure to meet an emission limit, record an estimate of the quantity of each regulated pollutant emitted over the emission limit and a description of the method used to estimate the emissions.

(2) For a failure to meet an operating limit, maintain sufficient information to estimate the quantity of each regulated pollutant emitted over the emission limit. This information must be sufficient to provide a reliable emissions estimate if requested by the DEQ.

(d) Records of all actions taken to minimize emissions and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(Ref.: 40 CFR 63.866(c)(4), (5) and (d), Subpart MM)

5.B.39 For Emission Points AA-007 and AA-009, the permittee shall demonstrate compliance with the TRS emission limits (expressed as H_2S) for AA-007 and PM emission limit for AA-009 by conducting a performance test within two (2) years of permit issuance and every five (5) years following the previous test thereafter, in accordance with EPA Reference Methods 16 or 16A for Emission Point AA-007 and Methods 1-5 for Emission Point AA-009.

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

5.B.40 For Emission Point AA-009, the permittee shall monitor the liquid flow rate of the scrubber and record a daily block average to indicate continuous compliance with the PM emission

limit. An excursion shall be defined as any daily block average liquid flow rate which is less than 80 percent (%) of the average liquid flow rate set during the most recent performance test. An excursion shall result in immediate corrective action to restore the operating parameter above the minimum flow rate and/or pH as confirmed by recording the flow rate and/or pH upon completing corrective action(s).

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

5.B.41 For Emission Points AA-010 and AA-011, the permittee shall document the hours of operation each day and the days the boiler remained on site. Any temporary boiler replacing another temporary boiler and performing the same or similar function shall be included in calculating the consecutive time period.

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

5.B.42 For Emission Point AA-021, the permittee shall monitor the scrubber liquid flow rate and pH and record a daily block average value for each parameter to indicate continuous compliance with the VOC and TRS emission limits. An excursion will be considered any daily block average liquid flow rate which is below 55 gallons per minute or any daily block average liquid pH which is below 10.7 standard units. An excursion shall result in immediate corrective action to restore the operating parameter above the minimum flow rate and/or pH as confirmed by recording the flow rate and/or pH upon completing corrective action(s).

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

5.B.43 For Emission Point AA-052, the permittee shall install a non-resettable hour meter on the engine (if not already installed). The permittee shall monitor and record the hours of operation for the engine on a monthly basis for both emergency and non-emergency service. Additionally, the permittee shall detail (in writing) and maintain what classified each occurrence as either an emergency or a non-emergency.

(Ref.: 40 CFR 63.6625(f) and 63.6655(f)(1), Subpart ZZZZ)

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

5.B.44 For Emission Point AA-052, the permittee shall keep the following records:

(a) A copy of each notification and report submitted to comply with Subpart ZZZZ.

(b) Records of the occurrence and duration of each malfunction of an engine or hour meter.

(c) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore a malfunctioning engine or hour meter to its normal manner of operation.

(d) Records of the maintenance conducted on each engine in order to demonstrate the engines were operated and maintained in accordance to the maintenance plan.

All records shall be in a form suitable and ready for expeditious review for a period of five (5) years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. These records may be kept in an electronic or hard copy format.

(Ref.: 40 CFR 63.6655(a)(1), (2), (5), (e)(2) and 63.6660, Subpart ZZZZ)

5.B.45 For Emission Points AA-050, AA-053, AA-054, and AA-055, the permittee shall install a non-resettable hour meter on the engine (if one is not already installed). The permittee shall monitor and record the hours of operation for an engine on a monthly basis for both emergency and non-emergency service. Additionally, the permittee shall detail (in writing) and maintain what classified each occurrence as either an emergency or a non-emergency.

(Ref.: 40 CFR 60.4209(a) and 60.4214(b), Subpart IIII)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.46 The permittee shall conduct the following monitoring in accordance with the CAM Plans found in Appendix D of the permit.

(a) For Emission Point AA-003, continuously monitor scrubber liquid flow rate at all times of operation and monitor the pH of the scrubber liquid daily as an indicator for SO_2 *when the kiln is combusting petroleum coke as a fuel*. Otherwise, the pH of the scrubber liquid is monitoring weekly per Condition 5.B.12.

(b) For Emission Point AA-006, continuously monitor scrubber liquid flow rate and pressure differential across the scrubber as an indicator for PM_{10} and the scrubber liquid flow rate and pH as an indicator for SO_2 *when the boiler is controlling LVHC NCGs*.

(Ref.: 40 CFR 64.3(a), (b), 64.6(c), Compliance Assurance Monitoring)

5.B.47 For Emission Points AA-003 and AA-006, the permittee shall comply with the following requirements for the monitoring required by the approved CAM Plan:

(a) *Proper maintenance.* At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(b) *Continued operation.* Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data

recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used, including in data averaging and calculations or in fulfilling a minimum data availability requirement, as applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(Ref.: 40 CFR 64.7(b) and (c), Compliance Assurance Monitoring)

5.B.48 For Emission Points AA-003 and AA-006, upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(Ref.: 40 CFR 64.7(d), Compliance Assurance Monitoring)

5.B.49 For Emission Points AA-003 and AA-006, based on the results of a determination made under Condition 5.B.48, the permittee shall develop and implement a Quality Improvement Plan (QIP) containing the elements specified in 40 CFR 64.8(b) if the accumulation of excursions exceed 5% of the operating time during a given semiannual period. For excursions determined on a daily basis, the permittee shall evaluate each day an excursion is noted compared to each day the emission unit operated during the semiannual period. The QIP shall be developed and implemented within 180 days from the end date of the semiannual period (i.e., June 30th or December 31st) indicating excursions in excess of 5%. The DEQ may require the permittee make reasonable changes to the QIP if the QIP fails to address the cause of the control device performance problem or fails to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Implementation of a QIP shall not excuse the permittee from compliance with

any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that applies.

(Ref.: 40 CFR 64.8, Compliance Assurance Monitoring)

5.B.50 For Emission Points AA-003 and AA-006, the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to Condition 5.B.49 and any activities undertaken to implement a QIP, data used to document the adequacy of monitoring, and monitoring maintenance or corrective actions, as applicable. As applicable, records of monitoring data and monitoring performance data should include date and time, who performed the analysis, analytical techniques or methods used, results and operating conditions at the time of the sampling or measurement. These records may be maintained in hard copy form or electronically, provided they are available for expeditious inspection and review.

(Ref.: 40 CFR 64.9(b), Compliance Assurance Monitoring)

C. Specific Reporting Requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Reporting Requirement
Facility-wide	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.1	Testing Requirements	Performance testing notification / submittal requirements
AA-001 AA-033 AA-034 AA-037 AA-038	40 CFR 63.455(f), Subpart S	5.C.2	HAP	Monitoring notification
	40 CFR 63.455(g) and 63.456, Subpart S	5.C.3		Malfunction reporting
	40 CFR 63.455(a) and Table 1, Subpart S 40 CFR 63.10(e)(3), Subpart A	5.C.4		Excess emissions reporting
	40 CFR 63.455(h), Subpart S 11 Miss. Admin. Code Pt. 2, R. 6.3.(A)(3)(c)(1).	5.C.5		Submittal of required test reports
AA-003 AA-005 AA-006 AA-010 AA-011	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.6	Fuel usage	Semiannual report
AA-003 AA-009 AA-021	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.7	SO_2 NO_x	Report parametric monitor excursions
AA-003 AA-005 AA-007	40 CFR 63.867(c)(1), and (3)-(5), Subpart MM	5.C.8	PM	Semiannual excess emissions report
	40 CFR 63.867(d)(2), Subpart MM 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.10		Electronic reporting
AA-003 AA-005	11 Miss. Admin. Code Pt. 2, R. 1.4.B(6)(f).	5.C.9	TRS	Quarterly excess emissions report
AA-005	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.11	SO_2	Semiannual report
AA-006	40 CFR 63.7550(a), (b)(5), (c)(5)(i)-(iii), (v), (vi), (xi)-(xiii), (xvi)-(xviii), (e), and Table 9, Subpart DDDDD	5.C.12	HAP	Semiannual excess emission reports

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Reporting Requirement
AA-006	40 CFR 63.7550(h), Subpart DDDDD 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.13	HAP	Test reports and CEMS evaluations
AA-010 AA-011	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.14	Day on site	Semiannual report of consecutive days on site and boiler specifications
AA-052	40 CFR 63.6640(b), 63.6650(f), and Footnote 1 to Table 2c, Subpart ZZZZ	5.C.15	HAP	Report all deviations
AA-050 AA-052 AA-053 AA-054 AA-055	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.15 and 5.C.16	Hours of operation	Semiannual report
AA-003 AA-006	40 CFR 64.9(a), CAM	5.C.17	CAM Reporting	Semiannual reporting requirements
	40 CFR 64.7(e), CAM	5.C.18	CAM Modification	Promptly notify DEQ of failure to achieve limit/standard though no excursion or exceedance was indicated by approved monitoring

5.C.1 The permittee shall submit the following notifications, information, and reports for each required performance test on or before any required performance test unless otherwise specified elsewhere:

(a) A notification of the scheduled test date(s) shall be submitted ten (10) days prior to the scheduled date(s) so an observer may be afforded the opportunity to witness the test(s).

(b) For all required testing, the permittee shall submit a written test protocol at least thirty (30) days prior to the intended test date(s), or sixty (60) days prior for testing required under 40 CFR 63 Subparts S, MM, and DDDDD, to ensure that all test methods and procedures are acceptable to the DEQ. If the test protocol proposes variances from the EPA Reference Method(s), the permittee shall submit a written test protocol at least ninety (90) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. After the first successful submittal of a written test protocol, the permittee may request that the submittal of a testing protocol be waived for subsequent testing by certifying in writing at least

thirty (30) days prior to the subsequent testing that all conditions for testing remain unchanged such that the original protocol can and will be followed.

(c) The permittee shall submit a summary of the results of any periodic and/or parametric monitoring required to be monitored and recorded during performance testing.

(d) Unless otherwise specified herein, performance test results must be submitted to the DEQ within sixty (60) days following completion of the performance test(s).

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

5.C.2 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, in the event of dangerous, hazardous, or otherwise unsafe conditions that do not allow a compliance determination to be conducted using the sampling and testing procedures in 40 CFR 63.457(l), the permittee shall notify the DEQ as soon as practicable of the onset of such conditions. The notification shall occur no later than 24 hours after the onset of the dangerous, hazardous, or otherwise unsafe conditions and shall include the specific reason(s) that the sampling and test procedures in 40 CFR 63.457(l) could not be performed.

(Ref.: 40 CFR 63.455(f), Subpart S)

5.C.3 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee shall report the number, duration, and a brief description of each type of malfunction that occurs during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken during the malfunction to minimize emissions, including actions taken to correct the malfunction.

The permittee may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by a malfunction provided the permittee meets the reporting requirements in 40 CFR 63.456(b) and proves by a preponderance of evidence that the violation meets the criteria of 40 CFR 63.456(a)(1) through (9).

(Ref.: 40 CFR 63.455(g) and 63.456, Subpart S)

5.C.4 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee shall report excess emissions and parameter monitoring exceedances in accordance with Condition 5.A.4.

(Ref.: 40 CFR 63.455(a) and Table 1, Subpart S)
(Ref.: 40 CFR 63.10(e)(3), Subpart A)

5.C.5 For Emission Points AA-001, AA-033, AA-034, AA-037, and AA-038, the permittee shall submit test reports as specified below:

(a) The permittee shall submit the results of the performance tests before the close of business on the 60th day following the completion of the performance test. The test is considered complete when field sample collection is terminated. Results of a performance test must include the analysis of sample, determination of emissions, and raw data. A complete test report must include the purpose of the test; a brief process description; a complete unit description, including a description of feed streams and control devices; sampling site description; pollutants measured; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions, including operating parameters for which limits are being set, during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; chain-of-custody documentation; explanation of laboratory data qualifiers; example calculations of all applicable stack gas parameters, emission rates, percent reduction rates, and analytical results, as applicable; and any other information required by the test method.

(b) Within 60 days after the completion of each performance test required under Subpart S, the permittee must submit the results to EPA's WebFIRE database using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX). The test data must be submitted in the file format generated through the use of the EPA's Electronic Reporting Tool.

The results of all performance tests shall also be submitted directly to the DEQ.

(Ref.: 40 CFR 63.455(h), Subpart S)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.C.6 For Emission Points AA-003, AA-005, AA-006, AA-010, and AA-011, the permittee shall submit a summary report in accordance with Condition 5.A.4 containing the fuel usage information required for each unit as specified in Condition 5.B.10.

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

5.C.7 For Emission Points AA-003, AA-009, and AA-021, the permittee shall report all parametric monitoring excursion that occur during each semiannual reporting period. The information that shall be submitted for each exceedance shall include the monitoring parameter value that was exceeded, duration of exceedance, cause, and any corrective actions that were taken to return the monitoring value to the normal operating range. This information shall be submitted semiannually in accordance with Condition 5.A.4.

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

5.C.8 For Emission Points AA-003, AA-005, and AA-007, the permittee shall submit a semiannual excess emissions report containing the information specified below:

(a) If the total duration of excess emissions or process control system parameter exceedances for the reporting period is less than 1 percent of the total reporting period operating time, and CMS downtime is less than 5 percent of the total reporting period operating time, only the summary report is required to be submitted. The summary report shall be titles "Summary Report – Gaseous and Opacity Excess Emissions and Continuous Monitoring System Performance" and must contain the information specified in (1) through (10) below.

(1) Company name and address

(2) Beginning and ending dates of the reporting period.

(3) An identification of each process unit with the corresponding air pollution control device, being included in the semiannual report, including the pollutants monitored at each process unit, and the total operating time for each process unit.

(4) An identification of the applicable emission limits, operating parameter limits, and averaging times.

(5) An identification of the monitoring equipment used for each process unit and the corresponding model number.

(6) Date of the last CMS certification or Audit.

(7) An emission data summary, including the total duration of excess emissions, the duration of excess emissions expressed as a percent of operating time, the number of averaging periods recorded as excess emissions, and reason for the excess emissions (e.g., startup/shutdown, control equipment problems, other known or unknown reasons).

(8) A CMS performance summary, including the total duration of CMS downtime during the reporting period, the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period (e.g., monitoring equipment malfunction, non-monitoring equipment malfunction, quality assurance, quality control calibrations, other known or unknown causes).

(9) A description of changes to CMS, processes, or controls since last reporting period.

(10) A certification by a certifying official of truth, accuracy, and completeness. This will state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) If the measured parameters meet any of the criteria from 40 CFR 63.864(k)(i) or (k)(ii), the permittee must submit a semiannual report describing the excess emissions that occurred. If the total duration of monitoring exceedances for the reporting period is 1 percent (%) or greater of the total reporting period operating time, or the total CMS downtime for the reporting period is 5 percent (%) or greater of the total reporting period operating time, or any violations occurred, information from both the summary report and the excess emissions and continuous monitoring system performance report must be submitted. This report will be titled "Excess Emissions and Continuous Monitoring System Performance Report" and must contain the information specified in paragraphs (a)(1) through (10) above, in addition to the information required in paragraphs (1) through (6) below. Reporting monitoring exceedances does not constitute a violation of the applicable standard unless the violation criteria is reached.

(1) An identification of the date and time identifying each period which the CMS was inoperative except for zero (low-level) and high-level checks;

(2) An identification of the date and time identifying each period during which the CMS was out of control;

(3) The specific identification of each period of excess emissions and parameter monitoring exceedances as described in paragraphs (i) through (iii) below.

(i) For opacity:

(A) The total number of 6-minute averages in the reporting period;

(B) The number of 6-minute averages in the reporting period that exceeded the relevant opacity limit;

(C) The percent of 6-minute averages in the reporting period that exceed the relevant opacity limit; and

(D) An identification of each exceedance by start and end time, date, and cause of exceedance (including startup/shutdown, control equipment problems, process problems, other known causes, or other unknown causes).

(ii) For wet scrubber operating parameters:

(A) The operating limits established during the performance test for scrubbing liquid flow rate and pressure drop across the scrubber (or fan amperage if used for smelt dissolving tank scrubbers).

(B) The number of 3-hour wet scrubber parameter averages below the minimum operating limit established during the performance test, if applicable.

(C) An identification of each exceedance by start and end time, date, and cause of exceedance (including startup/shutdown,

control equipment problems, process problems, other known causes, or other unknown causes).

If the permittee fails to meet an applicable standard, including any emission limit or any opacity limit, the permittee shall report such events in the semiannual excess emissions report. Report the number of failures to meet an applicable standard. For each instance, report the date, time, and duration of each failure. For each failure, the report must include a list of affected sources or equipment, and for any failure to meet an emission limit, provide an estimate of the quantity of each regulated pollutant emitted over the emission limit, and a description of the method used to estimate the emissions.

The excess emissions report required under Subpart MM may be combined with the excess emissions report required under 40 CFR 63, Subpart S.

(Ref.: 40 CFR 63.867(c)(1) and (3)-(5), Subpart MM)

5.C.9 For Emission Points AA-003 and AA-005, the permittee shall report, for each calendar quarter, the periods of emissions which exceed the TRS limits specified in Conditions 3.B.15 and 3.B.20. The report shall specify the 12-hour period of each exceedance by time and date, the average emissions concentration for the period, and the total number of 12-hour periods of mill operation during the quarter. The report shall also detail all outages of the monitoring devices by time and date. The report shall be due within forty-five (45) days following the end of the calendar quarter.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.B(6)(f).)

5.C.10 For Emission Points AA-003, AA-005, and AA-007, the permittee shall electronically submit the results of each performance test within 60 days after completion of the test via the EPA's reporting interface known as CEDRI and all required notifications and/or semiannual reports in accordance with 40 CFR 63.867(d)(2). **These reports shall also be submitted directly to the DEQ.**

(Ref.: 40 CFR 63.867(d)(2), Subpart MM)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).)

5.C.11 For Emission Point AA-005, the permittee shall report all deviations in accordance with Condition 5.A.5 in the event the 12-hour average concentration of SO_2 exceeds 230 ppmvd corrected to 8% oxygen. The information shall include the 12-hour average concentration of SO_2 recorded during the deviation period(s), the duration the emissions exceeded the indicator concentration, the cause for the deviation (if known), and what corrective actions were taken to return the unit back to normal operation.

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

5.C.12 For Emission Point AA-006, the permittee shall submit a semiannual compliance report in accordance with Condition 4.2 of the permit which contains the following information:

(a) Company and facility name and address;

(b) Process unit information, emissions limitations, and operating parameter limitations;

(c) Date of report and beginning and end dates of the reporting period;

(d) The monitoring equipment manufacturer(s) and model numbers and the date of the last certification or audit;

(e) The total fuel use by the boiler, including but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or the permittee's basis for concluding the fuel is not a waste, and the total fuel usage amount with units of measure;

(f) If there are no deviations from emission or operating limits, a statement that there were no deviations from the emission or operating limits during the reporting period;

(g) If there were no deviations from the monitoring requirements including no periods during which a CMS was out of control, a statement that there were no deviations and no periods during which the CMS was out of control during the reporting period;

(h) If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken during a malfunction of the boiler, associated air pollution control device, or CMS to minimize emissions, including actions taken to correct the malfunction;

(i) For each reporting period, the compliance reports must include all of the calculated 30-day rolling average values for CEMS (SO_2) and the PM CPMS data;

(j) A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report; and

(k) For each instance of startup or shutdown include the information required to be monitored, collected, or recorded.

(l) In addition to the information above, if there is a deviation from an emission limit, operating limit, or monitoring requirement during the reporting period, the compliance report shall also contain the following information:

(1) The date and time each deviation started and stopped and description of the nature of the deviation;

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks;

(3) The date, time, and duration that each CMS was out of control, including the information in 40 CFR 63.8(c)(8);

(4) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period;

(5) A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes;

(6) A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period;

(7) A brief description of the source for which there was a deviation; and

(8) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(Ref.: 40 CFR 63.7550(a), (b)(5), (c)(5)(i)-(iii), (v), (vi), (xi)-(xiii), (xvi)-(xviii), (e), and Table 9, Subpart DDDDD)

5.C.13 For Emission Point AA-006, the permittee shall submit performance test reports and the results of any CEMS performance evaluations in accordance with 40 CFR 63.7550(h)(1) through (3). **These reports shall also be submitted directly to the DEQ.**

(Ref.: 40 CFR 63.7550(h), Subpart DDDDD)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).)

5.C.14 For Emission Points AA-010 and AA-011, the permittee shall submit semiannual reports in accordance with Condition 5.A.4 that summarizes the total consecutive days any temporary boiler or boiler(s) were at a location on site and the manufacturer, serial number, and maximum design heat input capacity of each temporary boiler brought on site.

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

5.C.15 For Emission Point AA-052, the permittee shall report the hours of operation for the emergency engine (including a summary on 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). These annual hours shall be submitted for each calendar year in the semiannual report due January 31st of each year.

This report shall also include all deviations from any emission or operating limitation of Subpart ZZZZ. Such deviations shall include any failure to perform the work practice on the required schedule. In the event a work practice is delayed because the engine is operating during an emergency or if performing the work practice on the required work

schedule posed an unacceptable risk under federal, state, or local law, the permittee shall include in the report the reason for the delay.

(Ref.: 40 CFR 63.6640(b), 63.6650(f), and Footnote 1 to Table 2c, Subpart ZZZZ)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)

5.C.16 For Emission Points AA-050, AA-053, AA-054, and AA-055, the permittee shall report the hours of operation for the emergency engines (including a summary on 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). These annual hours shall be submitted for each calendar year in the semiannual report due January 31st of each year.

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

5.C.17 For Emission Points AA-003 and AA-006, the permittee shall submit reports in accordance with Condition 5.A.4 of the following information, as applicable:

(a) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(b) Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(c) A description of the actions taken to implement a QIP during the reporting period as specified in Condition 5.B.49. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances.

(Ref.: 40 CFR 64.9(a), Compliance Assurance Monitoring)

5.C.18 For Emission Points AA-003 and AA-006, if the permittee identifies a failure to achieve compliance with the emission limitation or standard for which the approved CAM monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or monitoring additional parameters.

(Ref.: 40 CFR 64.7(e), Compliance Assurance Monitoring)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 None 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 containing class I, class II or non-exempt substitute refrigerants;

(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

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
lb/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
$PM_{2.5}$	Particulate Matter less than 2.5 μm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOHAP	Volatile Organic Hazardous Air Pollutant
VOC	Volatile Organic Compound

APPENDIX B

List of Regulations Referenced In this Permit

11 Miss. Admin. Code, Part 2, Ch. 1. – Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants (Amended November 10, 2016)

11 Miss. Admin. Code, Part 2, Ch. 2. – Permit Regulations for the Construction and/or Operation of Air Emissions Equipment (Amended July 28, 2005)

11 Miss. Admin. Code, Part 2, Ch. 6. – Air Emission Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act (Amended June 28, 2012)

40 CFR 82, Protection of Stratospheric Ozone

40 CFR 60, Subpart BB, Standards of Performance for Kraft Pulp Mills

40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR 63, Subpart S, NESHAP from the Pulp and Paper Industry

40 CFR 63, Subpart MM, NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills

40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines

40 CFR 63, Subpart DDDDD, NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

APPENDIX C

EPA-Approved Alternative Monitoring

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

SEP 24 2019

Michael W. Lyles
Mill Manager
International Paper – Vicksburg Mill
P.O. Box 358
Redwood, Mississippi 39156

Dear Mr. Lyles:

This letter is in response to your February 4, 2019, letter to the U.S. Environmental Protection Agency concerning a fan amp monitoring alternative to the monitoring requirements provided in the 2017 amendments to 40 CFR part 63, Subpart MM, National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills (Subpart MM) at International Paper's Vicksburg Mill (IP) in Redwood, Mississippi. The letter was later supplemented by a webinar from Brittany Robinson and Cliff Whitam on March 19, 2019, with additional information concerning dynamic scrubbers that operate near atmospheric pressure on smelt dissolving tanks, specifically Ducon scrubbers. In the letter, IP requests approval of an alternative method to setting scrubber fan amps than was provided in the 2017 amendments to Subpart MM.

Prior to the 2017 amendments, Subpart MM required smelt dissolving tanks to utilize a continuous parameter monitoring system (CPMS) to monitor pressure drop across the scrubber and the scrubbing liquid flow rate at least once every 15-minute period. An alternative monitoring parameter was added at 40 CFR 63.864(e)(10)(iii) as part of the amendments that reads:

> *As an alternative to pressure drop measurement under paragraph (e)(3)(i) of this section, a monitoring device for measurement of fan amperage may be used for smelt dissolving tank dynamic scrubbers that operate at ambient pressure or for low-energy entrainment scrubbers where the fan speed does not vary.*

This amendment was based on the EPA's review of alternative monitoring requests for smelt dissolving tanks available in the EPA's Applicability Determination Index (ADI; see proposal preamble at 81 FR 97074). In these previously approved alternative monitoring requests, the EPA acknowledged that pressure drop is not the best indicator of particulate matter (PM)/hazardous air pollutant (HAP) control device performance when the scrubber is a low-energy entrainment scrubber (as at the Vicksburg facility). Low-energy entrainment scrubbers use the rotation of the fan blade to shatter the scrubbing liquid into fine droplets, while at the same time accelerating the particles into the airstream. The PM removal efficiency of these scrubbers is a function of the number of liquid droplets produced (to create a large contacting surface area) and the velocity of the particulates imparted by the fan blade, which in turn is a function of the amount of scrubbing liquid introduced and the tip speed of the fan blade. Therefore, the most important parameters to continuously monitor are the scrubbing liquid flow rate and the fan rotational speed (rpm), which IP has indicated can be assured by monitoring amperage of the constant-speed fan in its Ducon scrubber.

Additionally, the amended 40 CFR 63.864(j)(5)(i)(A) states:

> *For a smelt dissolving tank dynamic scrubber operating at ambient pressure or for low-energy entrainment scrubbers where fan speed does not vary, the minimum fan amperage operating limit must be set as the lowest of the 1-hour average fan amperage values associate with each run demonstrating compliance with the applicable emission limit in section 63.862.*

According to IP, establishing a fan amperage operating limit as outlined in section 63.864(j)(5)(i)(A) is difficult to achieve because the fluctuations in amperage to a constant-speed fan are not a function of scrubber performance, but of atmospheric conditions. Setting the operating limit as described in the section could result in a minimum fan amperage limit that cannot be achieved at all times, even if the fan is carrying the load necessary to meet the performance requirements, resulting in potential deviations of the operating parameter that are not indicative of improper control device operation. As a result, IP is requesting to establish the fan amp operating limit as the midpoint between the no-load amperage value and the lowest of the 1-hour average fan amperage values associated with each test run demonstrating compliance with the applicable limit in section 63.862.

Based on the information provided by IP in the written alternative monitoring request and the follow-up webinar, the EPA agrees that establishing the fan amperage operating limit in accordance with section 63.864(j)(5)(i)(A) could result in a deviation of the operating parameters even with the scrubber operating and removing PM/HAP as intended. The intent of the addition of fan amperage monitoring as part of the Subpart MM amendments was to offer a reliable alternative means of ensuring proper scrubber operation. However, it has become clear that, under certain environmental conditions, the amended rule requirements for establishing the monitoring parameter could result in an indicated parameter deficiency at times when the scrubber is operating properly and meeting emission standards. Therefore, per 40 CFR 63.8(f), the EPA grants IP's proposed alternative monitoring method request for the Vicksburg Mill in Redwood, Mississippi as described below. Specifically,

- The no-load amperage value must be determined using manufacturer specifications, or by performing a no-load test for each smelt dissolving tank scrubber. Documentation for determining the no-load value must be retained on-site;
- The lowest 1-hour average fan amperage value must be determined using the performance test requirements described in section 63.865, and the 1-hour average must be in compliance with the applicable limit in section 63.862;
- The average between the no-load amperage and the stack test amperage must be determined and documentation of the determination retained on-site;
- Fan amps must be monitored at least once each successive 15-minute period using the procedures described in section 63.8(c) and section 63.684(e)(10); and
- Continuous compliance must be demonstrated based on a 3-hour average.

In addition, the EPA may alter this approval in the future, in accordance with applicable regulations, if the agency determines that it is warranted.

This response was developed in coordination with the EPA's Office of Air Quality Planning and Standards and Office of Enforcement and Compliance Assurance. If you have any questions regarding this approval, please contact Jake Carpenter at (404) 562-9039 or at carpenter.jacob@epa.gov.

Sincerely,

Carol L. Kemker
Acting Director
Air and Radiation Division

cc: Chad LaFontaine, MS DEQ
Brittany Robinson, International Paper (via email)
Kelley Spence, EPA OAQPS (via email)

APPENDIX D

40 CFR 64 – Compliance Assurance Monitoring Plans

CAM Plan for Emission Point AA-003 – 100 MMBtu/hr Lime Kiln with Venturi Scrubber

Pollutant: SO_2	Indicator No. 1	Indicator No. 2
Indicator	Scrubber liquid flow rate	Scrubber liquid pH
Measurement Approach	Flow meter to continuously measure scrubber liquid flow rate	Manual sample from scrubber recirculation flow to measure pH
Monitoring Method and Location	Continuous monitoring as required by 40 CFR 63, Subpart MM	Collect sample of scrubbing liquid from scrubber recirculation and use portable pH probe to measure pH in the field
Indicator Range (including the corrective action taken for an excursion)	Comply with 40 CFR 63, Subpart MM	Maintain pH at ≤ 2.0 standard units below the average pH measured during the most recent performance test.
Monitoring Frequency	Continuous (once every 15 minutes)	Daily (when burning petroleum coke) Weekly (when not burning petroleum coke)
Data Collection/ Recordkeeping Procedures	Data reduced to 3-hour rolling averages. Each 3-hour average is recorded.	Recorded manually in a log.
Averaging Period	3-hour average	Instantaneous
QA/QC Practices	Calibrate and maintain the monitoring device as specified in 40 CFR 63, Subpart MM	pH probe is calibrated before each sample is tested according to the manufacturer's recommendations

CAM Plan for Emission Point AA-006 – Power Boiler with Venturi Scrubber

CAM for SO_2 applies to Indicator No. 3 when the Power Boiler combusts LVHC NCGs.

Pollutant: PM_{10}, SO_2	Indicator No. 1	Indicator No. 2	Indicator No. 3*
Indicator	Scrubber liquid flow rate	Gas (scrubber) pressure differential	Scrubber liquid pH
Measurement Approach	Flow meter to continuously measure scrubber liquid flow rate	Pressure differential (ΔP) device used to continuously measure ΔP	Continuous pH monitoring system
Monitoring Method and Location	Continuous monitoring as required by 40 CFR 63, Subpart DDDDD	Continuous monitoring as required by 40 CFR 63, Subpart DDDDD	Continuous monitoring of pH in the scrubber liquid recycle line
Indicator Range (including the corrective action taken for an excursion)	Comply with 40 CFR 63, Subpart DDDDD	Comply with 40 CFR 63, Subpart DDDDD	Maintain pH at ≥ 6.0 standard units when firing LVHCs
Monitoring Frequency	Continuous (once every 15 minutes)	Continuous (once every 15 minutes)	Continuous (once every 15 minutes) when firing LVHCs
Data Collection/ Recordkeeping Procedures	Data is recorded continuously	Data is recorded continuously	Data is recorded on a 12-hour block average
Averaging Period	30-day rolling average	30-day rolling average	12-hour block average (when firing LVHCs)
QA/QC Practices	Calibrate and maintain the monitoring device per Mill's site-specific monitoring plan developed according to 40 CFR 63.7505(d).	Calibrate and maintain the monitoring device per Mill's site-specific monitoring plan developed according to 40 CFR 63.7505(d).	pH probe is calibrated annually and after maintenance is performed