STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

International Paper Company, Columbus Mill
4335 Carson Road
Columbus, Lowndes County, Mississippi

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

Permit Issued: October 1, 2020

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Krystal Rudolph

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: September 30, 2025 **Permit No.: 1680-00044**

Modified: April 5, 2021 (administrative)

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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 three (3) or more years. Such a reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended.

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

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

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

(b) Proceedings to reopen and issue this permit shall follow the same procedures as

apply to initial permit issuance and shall only affect those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

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

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

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

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

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

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

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

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

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

(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 MDEQ 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 MDEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

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

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

(a) Enter upon the permittee's premises where a Title V source is located 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 MDEQ any additional information identified as being needed to process the application.

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

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

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

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

(c) The permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such

other 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 Mississippi Administrative Code, Title 11, Part 2, Chapter 3 – "Regulations for the Prevention of Air Pollution Emergency Episodes" – for the level of emergency declared.

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

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

"Modification" is defined as [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 Part 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 five hundred (500) yards of an occupied dwelling.

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

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

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

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

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

(b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.

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

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

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

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

(4) The permittee submitted notice of the emergency to the MDEQ within two (2) working days of the time when emission limitations were exceeded due to

the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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

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

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

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

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

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

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

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

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

(iv) That within five (5) working days of the time the upset began, the source submitted a written report to the Department describing the upset, the steps taken to mitigate excess emissions or any other 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) Start-ups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

(1) Start-ups and shutdowns are part of normal source operation. Emission limitations apply during 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 Mississippi Administrative Code, Title 11, 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 Mississippi Administrative Code, Title 11, Part 2, Chapter 1, Rule 1.8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

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

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
General Facility Operations (Areas 100-140)	
AA-003	Fugitive road emissions
AA-004	Emissions from wastewater treatment system
Woodyard Activities (Areas 210-230)	
AA-010	Three (3) Chip Screen House cyclones
AA-011	Coal storage and handling system
AA-013	Chipper
AA-014	Debarking drum
AA-016	Fugitive emissions from chip piles
AA-018	Two (2) hog fuel hoggers
AA-020	Fugitive emissions from hog fuel piles
AA-022	Rechipper cyclone
Kraft Fiber Line (Area 410) and Evaporators and Concentrators (Area 660)	
AA-031	Oxygen (O_2) Delignification Unit consisting of emissions from O_2 Reactor Blow Tank (same as #2 Press Feed Tank), Post O_2 Fan Vent and #3 Press Feed Tank. Emissions from the O_2 Reactor Blow Tank are routed to the HVLC Gas Collection System (AA-033).
AA-032	Kraft pulping Low Volume High Concentration (LVHC) Gas Collection System, which includes emissions from the digester, turpentine recovery, evaporator, steam stripper (control device to treat Kraft pulping condensate listed as AA-034), and chip bin systems. The LVHC System is routed to the Recovery Furnace (AA-100) for primary control or Multiple Fuel Power Boiler (AA-081) as backup.
AA-033	High Volume Low Concentration (HVLC) Gas Collection System which collects emissions from the following: (1) the brown stock area (digester blow tank, decker, and associated tanks), #1 Press and associated tanks, and screen dilution tank (screens and knotters enclosed but not vented) to comply with 40 CFR 63, Subpart S; (2) the O_2 Reactor Blow tank (same as the #2 Press Feed Tank); (3) the Recovery Area consisting of storage tanks; and (4) emissions from the crude tall oil (CTO) system. Emissions from this equipment are burned in the Multiple Fuel Boiler (AA-081) for primary control or the Package Boiler (AA-080) as backup control.
AA-034	Kraft Pulping Process Closed Condensate Collection System which includes condensates from the digester, turpentine recovery, weak liquor feed stages of the evaporator, HVLC, and LVHC systems (formerly Emission Point AA-028)
AA-037	Two (2) White Liquor oxidation tanks
AA-039	32,450-gallon Turpentine Storage Tank, with emissions routed to the LVHC Gas Collection System (AA-032)
AA-090	Soap level storage tank

Emission Point	Description
AA-091	Soap surge storage tank
AA-092	Soap storage tank
AA-093	5,890-gallon Clean Condensate storage tank
Bleach Plant (Area 670)	
AA-050	Emissions from the Kraft Mill Bleach Plant ClO_2, D1 and D2 stages, and associated tanks collected and controlled through the Bleach Plant Scrubber
AA-051	Brown stock high density storage tank
Pulp Machine and Supporting Operations (Areas 430-450)	
AA-060	Pulp Machine Winder equipped with a Venturi scrubber for PM control
AA-061	Area 430 building vents and dryer exhaust (formerly Emission Point AA-062)
AA-063	Vacuum system separator chest
AA-064	Dry end repulper
AA-065	Fourdrinier exhaust
AA-066	Three (3) Bleached Stock high density storage tanks
Chemical Preparation Area (Area 460)	
AA-070	15,000-gallon Methanol storage tank
AA-071	Emissions from ClO_2 generator and three (3) ClO_2 storage tanks vented through a common scrubber
AA-073	Two (2) Sodium Hydrosulfide storage tanks
Power Generation Area (Areas 600-650)	
AA-080	400 MMBtu/hr natural gas-fired Package Boiler with flue gas recirculation and low NO_x burners to produce steam and serve as backup control for the HVLC NCGs (AA-033)
AA-081	1,400 MMBtu/hr Multiple Fuel Power Boiler used to produce steam for electricity generation and process heat. The boiler is equipped with low-NO_x burners, a multi-clone cyclone and an electrostatic precipitator (ESP). The boiler serves as the primary means of control for the HVLC System (AA-033) and the backup for the LVHC System (AA-032)
Chemical Recovery Area (Area 670)	
AA-100	7.0 MMlb black liquor solids (BLS)/day Recovery Furnace equipped with an ESP. The boiler is permitted to burn BLS, fuel oil, and natural gas and serves as the primary means for the destruction of the LVHC stream from AA-032 and of liquid methanol from the rectification system.
AA-101	Smelt Dissolving Tank equipped with a Ducon wet scrubber
Recausticizing Plant (Area 680)	
AA-110	103 MMBtu/hr natural gas-fired Lime Kiln equipped with an ESP
AA-111	Hot lime storage system
AA-112	Lime slaker and causticizers equipped with a scrubber

Emission Point	Description
AA-113	30 MMBtu/hr natural gas-fired NCG Incinerator with afterburner and equipped with a scrubber. Serves as a standby means of control for the LVHC streams (AA-032)
AA-114	Green liquor clarifier
AA-116	Spill clarifier
AA-117	Dregs precoat filter
AA-118	Lime mud precoat filter
AA-119	Lime mud Clarifil
AA-120	White liquor Clarifil
AA-121	Pressure disk washer equipped with a scrubber
AA-122	Two (2) white liquor storage tanks
AA-123	Weak wash storage tank
AA-124	Lime mud mix storage tank
AA-125	Lime Mud storage tank
Facility-Wide Engines	
AA-400	121 HP (90 kW/0.61 MMBtu/hr) diesel-fired Lime Kiln Auxiliary Drive Engine (2013 Model), equipped with a diesel particulate filter and diesel oxidation catalytic converter (non-emergency engine used for startup)
AA-401	216 HP (161 kW/1.42 MMBtu/hr) diesel-fired Computer Systems Back-up Generator Engine (2017 Model) (emergency engine)
AA-402	220 HP (164 kW/1.43 MMBtu/hr) diesel-fired Utilities UPS Back-up Generator Engine (2006 Model, Manufactured in 2005) (emergency engine)
AA-403	185 HP (138 kW/1.49 MMBtu/hr) diesel-fired #2 Fire Water Pump Engine (1980 Model) (emergency engine)
AA-404	185 HP (138 kW/1.55 MMBtu/hr) diesel-fired #4 Fire Water Pump Engine (1988 Model) (emergency engine)
AA-405	112 HP (84 kW/1.03 MMBtu/hr) gasoline-fired Lime Mud Storage Tank Agitator Auxiliary Engine (1990's Model) (emergency engine)
AA-406	216 HP (160 kW/1.42 MMBtu/hr) diesel-fired Fiber Line UPS Back-up Generator Engine (2017 Model) (emergency engine)

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 Paragraph 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 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	Pollutant/ Parameter	Limit/Standard
Entire Facility	11 Miss. Admin. Code Pt. 2, R. 1.3.F.	3.B.1	PM (filterable only)	$E = 4.1\ p^{0.67}$ where p is the total process weight input rate in tons per hour from all process inputs combined
AA-010	PSD Permit to Construct issued September 10, 1996 and modified by the Title V Operating Permit issued October 10, 2000	3.B.2	PM / PM_{10} (filterable only)	2.42 lbs/hr and 10.6 tons/year for each cyclone
AA-011	40 CFR 60, Subpart Y Standards of Performance for Coal Preparation and Processing Plants 40 CFR 60.250 and 60.254(a), Subpart Y	3.B.3	PM	Applicability
			Opacity	≤ 20%
AA-031	PSD Permit to Construct issued September 10, 1996 and modified by the Title V Operating Permit issued October 10, 2000 and the Permit to Construct issued September 12, 2008	3.B.4	CO	0.7 lbs/bone-dry metric ton (BDMT) not to exceed 38.28 lbs/hr and 167.64 tons/year
AA-031 AA-032 AA-033 AA-034 AA-050	40 CFR 63, Subpart S NESHAP from the Pulp and Paper Industry 40 CFR 63.440 and 63.453(q), Subpart S	3.B.5	HAPs	Applicability
AA-032 AA-033	40 CFR 63.443(c) and 63.450, Subpart S	3.B.6	HAPs	Equipment shall be enclosed, vented to a closed vent system, and routed to a control device
AA-032	40 CFR 63.443(e)(1) and (3), Subpart S	3.B.7	HAPs	Excess emissions shall not exceed 1% of the total process operating time in a semiannual reporting period from the control device for the LVHC system; and Excess emissions shall not exceed 4% of the total process operating time in a semiannual reporting period from the control device for both the LVHC and HVLC systems
AA-031	40 CFR 63.447, Subpart S	3.B.8	HAPs	Utilize Clean Condensate Alternative (CCA) that meets or exceeds the total HAP emission reductions achievable through compliance with 40 CFR 63.443(a)(1)(ii) through (a)(1)(v)

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard
AA-032 AA-033	40 CFR 63.443(d), Subpart S	3.B.9	HAPs	The control device used to reduce total HAP emissions shall meet one of the compliance options specified in Condition 3.B.9.
AA-033	40 CFR 63.443(e)(2) and (3), Subpart S	3.B.10	HAPs	Excess emissions shall not exceed 4% of the total process operating time in a semiannual reporting period from the control device for the HVLC system; and Excess emissions shall not exceed 4% of the total process operating time in a semiannual reporting period from the control device for both the LVHC and HVLC systems
AA-034	40 CFR 63.446(c), Subpart S	3.B.11	HAPs	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)(1), (3), and (5), 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-050	PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000	3.B.12	CO	68.2 lbs/hr and 302.65 tons/year
	40 CFR 63.445(b), Subpart S	3.B.13	HAPs	Equipment shall be enclosed, vented to a closed vent system, and routed to a control device
	40 CFR 63.445(c), Subpart S			Reduce chlorinated HAP emissions accordingly
AA-060	PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000	3.B.14	PM / PM_{10} (filterable only)	0.55 lbs/hr and 2.4 tons/year
AA-071	PSD Permit to Construct issued September 10, 1996, and modified with TVOP issued October 10, 2000	3.B.15	CO	0.08 lbs/hr and 0.35 tons/year

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard
AA-080	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.16	PM (filterable only)	$E = 0.8808 * I^{-0.1667}$
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.17	SO_2	4.8 lbs./MMBtu
	PSD Permit to Construct issued September 10, 1996, and modified May 9, 2012, September 19, 2016, and July 18, 2017	3.B.18	**Limits when firing natural gas or a mixture of natural gas and HVLC gases**	
			NO_x	0.1 lbs./MMBtu, not to exceed 40.0 lbs/hr and 175.2 tons/year
			CO	0.1 lbs./MMBtu, not to exceed 40.0 lbs./hr and 175.2 tons/year
			Additional limit when firing HVLC gases	
			SO_2	100.4 lbs./hr and 439.8 tons/year
		3.B.19	Fuel Restriction	Natural gas or a mixture of natural gas and HVLC gases only and rolling 12-month total annual capacity factor < 10%
	40 CFR 60, Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	3.B.20	NO_X	Applicability
	40 CFR 60.40b(a), 60.44b(a) and (j) and 60.48b(i), Subpart Db	3.B.21		0.20 lbs./MMBtu heat input determined on a 3-hr average
	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) and (d), 63.7499(o), Subpart DDDDD	3.B.22	HAPs	Applicability
AA-081	11 Miss. Admin. Code Pt. 2, R. 1.3.D(2).	3.B.23	PM (filterable only)	0.30 gr/dscf
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.17	SO_2	4.8 lbs./MMBtu

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard
AA-081	Federally Enforceable Permit to Construct issued September 11, 2015, and modified September 28, 2020 *"Multiple Fuel Power Boiler LVHC NCG Project"*	3.B.24	PM / PM_{10} (filterable only)	0.045 lbs./MMBtu not to exceed 63.0 lbs./hr and 275.9 tons/year
			SO_2	0.45 lbs./MMBtu (rolling 12-month average) not to exceed 630 lbs./hr (rolling 12-month average) and 227 tons/year (rolling 12-month total) 0.50 lbs./MMBtu (rolling 30-day average) when firing oil other than very low sulfur oil
			NO_X	0.5 lbs./MMBtu (rolling 30-day average) not to exceed 700 lbs./hr (rolling 30-day average) and 3,066 tons/year (rolling 12-month total)
			CO	0.5 lbs./MMBtu not to exceed 700 lbs./hr and 3,066 tons/year
			VOCs (as propane)	0.10 lbs./MMBtu not to exceed 140.0 lbs./hr and 613.2 tons/year
			TRS	0.0036 lbs./MMBtu not to exceed 5.04 lbs./hr and 22.1 tons/year
			Lead	0.51 lbs./hr and 2.2 tons/year
			Opacity	≤ 20%
			Operating Limit	1,400 MMBtu/hr maximum heat input (rolling 24-hour average)
AA-081	Federally Enforceable Permit to Construct issued September 11, 2015	3.B.25	Fuel Restriction	See list of permitted fuels in condition
	40 CFR 60, Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60.40b(a), Subpart Db	3.B.20	PM (filterable only) SO_2 NO_X	Applicability
	40 CFR 60.42b(d), (e), and (g), Subpart Db	3.B.26	SO_2	1.2 lbs./MMBtu heat input (rolling 30-day average) when combusting coal; **OR** 0.5 lbs./MMBtu heat input (rolling 30-day average) when combusting oil other than very low sulfur oil

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard
AA-081	40 CFR 60.43b(a)(1), Subpart Db	3.B.26	PM	0.051 lbs./MMBtu
	40 CFR 60.43b(f) and (g), Subpart Db		Opacity	≤ 20%
	40 CFR 60.44b(c) and (i), Subpart Db		NO_X	0.50 lbs./MMBtu heat input (rolling 30-day average) when combusting coal or a mixture of coal and other fuels
	40 CFR 61, Subpart E National Emission Standard for Mercury 40 CFR 61.50, Subpart E	3.B.27	Mercury	Applicability
	40 CFR 61.52(b), Subpart E			3,200 grams (7.1 lbs.) of Hg per 24-hour period
	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) and (d), 63.7499(h), Subpart DDDDD	3.B.22	HAPs	Applicability
	40 CFR 63.7500(a)(1) through (3), and (f), 63.7505(a), and Tables 2 and 4, Items 1 and 13, Subpart DDDDD	3.B.28	PM (filterable only)	0.44 lbs./MMBtu of heat input
			HCl	0.022 lbs./MMBtu of heat input
			Hg	0.0000057 lbs./MMBtu of heat input
			CO	3,500 ppm by volume on a dry basis corrected to 3% oxygen (3-run average)
			Opacity	≤ 10% or the highest hourly average opacity reading measured during performance test
AA-100	11 Miss. Admin. Code Pt. 2, R. 1.3.E.	3.B.29	PM (filterable only)	4 lbs./ton of equivalent air-dried Kraft pulp produced
	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.16	PM (filterable only)	$\boldsymbol{E} = 0.8808 * \boldsymbol{I}^{-0.1667}$
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.17	SO_2	4.8 lbs./MMBtu

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard
AA-100	PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000	3.B.30	PM/PM_{10} (filterable only)	0.023 grains/dscf corrected to 8% O_2 not to exceed 93 lbs./hr and 407.3 tons/year
			SO_2	200 ppm by volume on a dry basis corrected to 4% O_2 not to exceed 724.2 lbs./hr and 3172.1 tons/year
			NO_X	80 ppm by volume on a dry basis corrected to 8% O_2 (2-hour average), not to exceed 272.6 lbs./hr and 1,193.9 tons/year
			CO	300 ppm by volume on a dry basis corrected to 8% O_2 (2-hour average), not to exceed 622.0 lbs./hr and 2,724.4 tons/year
			VOCs (as propane)	0.6 lbs./ton of virgin black liquor solids (BLS) not to exceed 78.75 lbs/hr and 344.99 tons/year
			TRS	5 ppm by volume on a dry basis corrected to 8% O_2 not to exceed 12.6 lbs./hr and 55.2 tons/year (as sulfide)
			Fuel Restriction	Sum of the annual capacity factor for fuel oil and natural gas ≤ 10 % (rolling 12-month basis)
	40 CFR 60, Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units 40 CFR 60.40b(a) and 60.40b(l), Subpart Db	3.B.20	SO_2 NO_X	Applicability
	40 CFR 60.42b(d), Subpart Db	3.B.31	SO_2	Reduction requirements not applicable since only low sulfur oil is used
	40 CFR 60.44b(e), Subpart Db		NO_X	No emission limit since annual capacity factor for fuel oil and natural gas limited to ≤ 10%
	40 CFR 60, Subpart BB Standards of Performance for Kraft Pulp Mills 40 CFR 60.280, Subpart BB	3.B.32	PM TRS	Applicability

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard
AA-100	40 CFR 60.282(a)(1)(i), Subpart BB	3.B.33	PM	0.044 gr/dscf corrected to 8% oxygen
	40 CFR 60.282(a)(1)(ii), Subpart BB		Opacity	≤ 35%
	40 CFR 60.283(a)(2), Subpart BB		TRS	5 ppm by volume on a dry basis corrected to 8% O_2
	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.34	HAP	Applicability
	40 CFR 63.862(a)(1)(i)(A), Subpart MM	3.B.35	PM	0.044 gr/dscf corrected to 8% oxygen
AA-101	11 Miss. Admin. Code Pt. 2, R. 1.4.B(1).	3.B.36	SO_2	500 ppm (volume)
	11 Miss. Admin. Code Pt. 2, R. 1.4.B(2).	3.B.37	H_2S	1 gr/100 standard cubic feet
	PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000	3.B.38	PM / PM_{10} (filterable only)	0.12 lbs./ton of BLS not to exceed 15.8 lbs./hr and 69.0 tons/year
			SO_2	0.1 lbs./ton of BLS not to exceed 13.3 lbs./hr and 58.0 tons/year
			TRS	0.033 lbs./ton of BLS not to exceed 4.0 lbs./hr and 17.5 tons/year
	40 CFR 60, Subpart BB Standards of Performance for Kraft Pulp Mills 40 CFR 60.280, Subpart BB	3.B.32	PM TRS	Applicability
	40 CFR 60.282(a)(2), Subpart BB	3.B.39	PM	0.2 lbs./ton BLS (dry weight)
	40 CFR 60.283(a)(4), Subpart BB		TRS	0.033 lbs./ton BLS as H_2S

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard
AA-101	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.34	HAPs	Applicability
	40 CFR 63.862(a)(1)(i)(B), Subpart MM	3.B.40	PM	0.20 lbs./ton BLS fired
AA-110	11 Miss. Admin. Code Pt. 2, R. 1.4.B(1).	3.B.36	SO_2	500 ppm (volume)
	11 Miss. Admin. Code Pt. 2, R. 1.4.B(2).	3.B.37	H_2S	1 gr/100 standard cubic feet
	PSD Permit to Construct issued September 10, 1996, modified by the Title V Operating Permit issued October 10, 2000, and modified by Permit to Construct issued May 20, 2009	3.B.41	PM/PM_{10} (filterable only)	0.033 gr/dscf corrected to 10% O_2 not to exceed 12.67 lbs./hr and 55.5 tons/year
			SO_2	50 ppm by volume on a dry basis corrected to 10% O_2 not to exceed 22.42 lbs./hr and 98.2 tons/year
			NO_X	300 ppm by volume on a dry basis corrected to 3.6% O_2 not to exceed 60.9 lbs./hr and 266.7 tons/year
			CO	50 lbs/.hr and 220 tons/year
			VOC	1.0 lb/ton of CaO not to exceed 17.5 lbs./hr and 76.65 tons/year
			TRS	8 ppm by volume on a dry basis corrected to 10% O_2 not to exceed 1.9 lbs./hr and 8.3 tons/year
			Opacity	≤ 20%
	40 CFR 60, Subpart BB Standards of Performance for Kraft Pulp Mills 40 CFR 60.280, Subpart BB	3.B.32	PM TRS	Applicability
	40 CFR 60.282(a)(3)(i), Subpart BB	3.B.42	PM	0.066 gr/dscf corrected to 10% O_2 when gaseous fossil fuels are burned
	40 CFR 60.283(a)(5), Subpart BB		TRS	8 ppm by volume on a dry basis corrected to 10% O_2

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard
AA-110	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.34	HAPs	Applicability
	40 CFR 63.862(a)(1)(i)(C), Subpart MM	3.B.43	PM	0.064 gr/dscf corrected to 10% O_2
AA-113	PSD Permit to Construct issued September 10, 1996, and modified in TVOP issued October 10, 2000	3.B.44	PM (filterable only)	7.8 lbs./hr not to exceed 34.4 tons/year
			PM_{10} (filterable only)	3.0 lbs./hr not to exceed 13.3 tons/year
			SO_2	3.1 lbs./hr not to exceed 13.7 tons/year
			TRS	5 ppm by volume not to exceed 1.2 lbs./hr and 5.3 tons/year
	40 CFR 60, Subpart BB Standards of Performance for Kraft Pulp Mills 40 CFR 60.280, Subpart BB	3.B.32	PM TRS	Applicability
	40 CFR 60.283(a)(1)(iii), Subpart BB	3.B.45	TRS	Not applicable since gases are incinerated
AA-400 AA-401 AA-402 AA-403 AA-404 AA-405 AA-406	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.B.46	PM (filterable only)	0.6 lbs./MMBtu
AA-400 AA-401 AA-402 AA-403 AA-404 AA-405 AA-406	40 CFR 63, Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines 40 CFR 63.6580, 63.6585(a) and (b), and 63.6590(a)(1)(ii), (a)(2)(ii), and (c)(6) and (c)(7), Subpart ZZZZ	3.B.47	HAPs	Applicability
AA-402 AA-403 AA-404 AA-405	40 CFR 63.6640(f)(1), (2), and (4), Subpart ZZZZ	3.B.48		Operating requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter	Limit/Standard	
AA-400 AA-401 AA-406	40 CFR 60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60.4200(a)(2)(i), Subpart IIII	3.B.49	NMHC+NO_X CO PM (filterable) SO_2	Applicability	
	40 CFR 60.4201(a), 60.4204(b), 60.4202(a)(2), 60.4205(b), and 60.4206, Subpart IIII, 40 CFR 89.112(a) and 89.113(a), Subpart B, and Table 5 of 40 CFR 1039.102, and 1039.105(b)	3.B.50	NMHC NO_X CO PM (filterable only)	AA-400 0.19 g/kW-hr 0.40 g/kW-hr 5.0 g/kW-hr 0.02 g/kW-hr	AA-401/AA-406 4.0 g/kW-hr (NMHC + NO_x) 3.5 g/kW-hr 0.20 g/kW-hr
		3.B.51	Opacity	≤20% during acceleration ≤15% during lugging mode ≤50% during the peaks in either acceleration or lugging mode	
AA-400 AA-401 AA-406	40 CFR 60.4207(b), Subpart IIII and 40 CFR 80.510(b), Subpart I	3.B.52	SO_2 (Diesel Fuel Requirements)	Sulfur content of 15 ppm max **AND** Minimum cetane index of 40 **OR** maximum aromatic content of 35 volume percent	
	40 CFR 60.4211(a)(1)-(3) and (c), Subpart IIII	3.B.53	NMHC+NO_X CO PM (filterable only)	Certified engine requirements	
AA-401 AA-406	40 CFR 60.4211(f)(1), (2)(i) and (3), Subpart IIII	3.B.54		Operating requirements	
AA-060 AA-081 AA-100	40 CFR 64 Compliance Assurance Monitoring 40 CFR 64.2(a)	3.B.55	PM	Applicability	
AA-080			NO_X		
AA-101			PM, SO_2, TRS		
AA-113			SO_2		

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.)

3.B.2 For Emission Point AA-010, the permittee shall limit emissions from all three cyclones combined as specified below:

(a) 2.42 lbs/hr and 10.6 tons/year (each cyclone) of PM (filterable only), as determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A.

(b) 2.42 lbs/hr and 10.6 tons/year (each cyclone) of PM_{10} (filterable only) as determined by EPA Test Method 201 or 201A.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000)

3.B.3 Emission Point AA-011 is subject to the applicable requirements of the Standards of Performance for Coal Preparation and Processing Plants, 40 CFR 60, Subpart Y. The permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system, any emissions that exhibit 20% opacity or greater.

(Ref.: 40 CFR 60.250 and 60.254(a), Subpart Y)

3.B.4 For Emission Point AA-031, the permittee shall limit Carbon Monoxide (CO) emissions to less than 0.7 lbs/bone-dry metric ton (BDMT) not to exceed 38.28 lbs/hr and 167.64 tons/year.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000)

3.B.5 Emission Points AA-031, AA-032, AA-033, AA-034, and AA-050 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.

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.6 Emission Points AA-032 and AA-033 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 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.7 For Emission Point AA-032, 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 for control devices used to reduce the total HAP emissions from the LVHC system; and

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

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

3.B.8 For Emission Point AA-031, the permittee shall reduce HAP emissions utilizing a Clean Condensate Alternative (CCA) that meets or exceeds the total HAP emission reductions achievable by complying with 40 CFR 63.443(a)(1)(ii) through (a)(1)(v).

(Ref.: 40 CFR 63.447, Subpart S)

3.B.9 For Emission Points AA-032 and AA-033, the permittee shall reduce total HAP by complying with one of the following options:

(a) Reduce total HAP emissions by 98 percent or more by weight; or

(b) Reduce the total HAP concentration at the outlet of the thermal oxidizer to 20 parts per million or less by volume, corrected to 10 percent oxygen on a dry basis; or

(c) Reduce total HAP emissions using a thermal oxidizer designed and operated at a minimum temperature of 871^0C (1600^0F) and a minimum residence time of 0.75 seconds; or

(d) Reduce total HAP emissions using one of the following:

(1) A boiler, lime kiln, or recovery furnace by introducing the HAP emission stream with the primary fuel or into the flame zone; or

(2) A boiler or recovery furnace with a heat input capacity greater than or equal to 44 megawatts (150 million British thermal units per hour) by introducing the HAP emission stream with the combustion air.

The LVHC streams from AA-032 shall be controlled via combustion in either the Recovery Furnace (Emission Point AA-100) for primary control or the Multiple Fuel Boiler (Emission Point AA-081) as backup. The HVLC streams from Emission Point AA-033 shall be controlled via combustion in the Multiple Fuel Boiler for primary control or the Package Boiler (Emission Point AA-080) for backup control.

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

3.B.10 For Emission Point AA-033, 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) Four percent for control devices used to reduce the total HAP emissions from the HVLC system; and

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

(Ref.: 40 CFR 63.443(e)(2) and (3), Subpart S)

3.B.11 For Emission Point AA-034, 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 at least 65% of the total HAP mass from the pulping process condensates 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 that in total contain a total HAP mass of

11.1 pounds per ton of ODP for mills that perform bleaching 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.6 (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) Recycle the pulping process condensate to an equipment system specified in Emission Point AA-032 and/or AA-033 which meets the capture and control requirements of 40 CFR 63.443(c) and (d); or

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

(3) Treat the pulping process condensates to remove 10.2 pounds of total HAP per ton of ODP, or achieve a total HAP concentration of 330 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). For each control device used to treat pulping process condensates to comply with the requirements of (b)(2) or (b)(3) above, periods of excess emissions reported under 40 CFR 63.455 provided the time of excess emissions divided by the total process operating time in the semiannual reporting period does not exceed 10 percent.

(Ref.: 40 CFR 63.446(c), (d), (e)(1), (3), and (5), (f), and (g), Subpart S)

3.B.12 For Emission Point AA-050, the permittee shall limit CO emissions to 68.2 lbs/hr and 302.65 tons/year as determined by EPA Reference Method 10, 40 CFR 60, Appendix A.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000)

3.B.13 For Emission Point AA-050, all affected bleaching equipment where chlorinated compounds are introduced shall be enclosed and vented into a closed-vent system and routed to a control device that meets the following requirements:

(a) Reduce the total chlorinated HAP mass in the vent stream entering the control device by 99 percent or more by weight; or

(b) Achieve a treatment device outlet concentration of 10 parts per million or less by volume of total chlorinated HAP; or

(c) Achieve a treatment device outlet mass emission rate of 0.001 kg of total chlorinated HAP mass per megagram (0.002 pounds per ton) of ODP.

(Ref.: 40 CFR 63.445(b) and (c), Subpart S)

3.B.14 For Emission Point AA-060, the permittee shall limit PM/PM_{10} (filterable) emissions to 0.55 lbs/hr and 2.4 tons/year as determined by EPA Reference Methods 1-5, 40 CFR 60, Appendix A.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000)

3.B.15 For Emission Point AA-071, the permittee shall limit CO emissions to 0.08 lbs/hr and 0.35 tons/year.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified with TVOP issued October 10, 2000)

3.B.16 For Emission Points AA-080 and AA-100, 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.17 For Emission Points AA-080, AA-081, and AA-100, 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 (SO_2) per million BTU heat input or as otherwise specified herein.

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

3.B.18 For Emission Point AA-080, the permittee shall meet the emission limitations in (a) and (b) below when firing natural gas only or natural gas combined with HVLC gases and the emission limit in (c) only when firing natural gas combined with the HVLC gases:

(a) NO_x – 0.1 lbs/MMBtu not to exceed 40.0 lbs/hr or 175.2 tons/year as determined by EPA Test Methods 7, 7A, or 7E, and 19 (Sections 2 and 3), 40 CFR 60, Appendix A.

(b) CO – 0.1 lbs/MMBtu not to exceed 40.0 lbs/hr or 175.2 tons/year as determined by EPA Test Methods 10, and 19 (Sections 2 and 3), 40 CFR 60, Appendix A.

(c) SO_2 – 100.4 lbs/hr and 439.8 tons/year when firing HVLCs in boiler.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified May 9, 2012, September 19, 2016, and July 18, 2017)

3.B.19 Emission Point AA-080 shall be limited to firing natural gas only (except when used as the backup control device for the HVLC stream typically routed to Emission Point AA-081) and shall be limited to a total annual capacity factor, as defined in 40 CFR 60.41b, of less than 10 percent.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified May 9, 2012, September 19, 2016, and July 18, 2017)

3.B.20 Emission Points AA-080, AA-081 and AA-100, are subject to and shall comply with all applicable requirements of the Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db. Per 40 CFR 60.40b(l), Emission Point AA-100 is only subject to the SO_2 and NO_x standards under Subpart Db.

(Ref.: 40 CFR 60.40b(a) and 60.40b(l), Subpart Db)

3.B.21 For Emission Point AA-080, the permittee shall not emit any gases that contain NO_x (expressed as NO_2) in excess of 0.20 lbs/MMBtu based upon a three-hour average. Since the unit has an annual capacity factor limit of 10 percent, the permittee is not required to install or operate a continuous emission monitoring system for measuring NO_x emissions.

(Ref.: 40 CFR 60.44b(a) and (j) and 60.48b(i), Subpart Db)

3.B.22 For Emission Points AA-080 and AA-081, the facility 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.

For purposes of Subpart DDDDD, Emission Point AA-080 is considered an existing boiler in the "limited-use boilers and process heaters" category and Emission Point AA-081 is considered an existing boiler in the "hybrid suspension grate boiler designed to burn biomass/bio-based solids" category. Per 63.7500(c), Emission Point AA-080 is not subject to the emission limits in Table 2 or the operating limits in Table 4 of Subpart DDDDD.

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

3.B.23 For Emission Point AA-081, emissions of PM (filterable) shall be limited to 0.30 grains per standard dry cubic foot.

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

3.B.24 For Emission Point AA-081, emissions shall be limited in accordance with the following:

(a) PM/PM_{10} (filterable only) – 0.045 lbs/MMBtu not to exceed 63.0 lbs/hr and 275.9 tons/year, as determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A;

(b) SO_2 – 0.45 lbs/MMBtu, based on a rolling 12-month average, not to exceed 630 lbs/hr (rolling 12-month average) and 227 tons/year (12-month rolling total), as determined by EPA Test Methods 8 and 19, 40 CFR 60, Appendix A; **OR** 0.50 lbs/MMBtu based on a rolling 30-day average when burning fuel oil other than very low sulfur fuel oil

(c) CO – 0.5 lbs/MMBtu not to exceed 700 lbs/hr and 3,066.0 tons/year, as determined by EPA Test Methods 10 and 19, 40 CFR 60, Appendix A;

(d) VOCs (as propane) – 0.10 lbs/MMBtu not to exceed 140.0 lbs/hr and 613.2 tons/year, as determined by EPA Test Methods 19 and 25A, 40 CFR 60, Appendix A;

(e) NO_x – 0.5 lbs/MMBtu, based on a rolling 30-day average, not to exceed 700 lbs/hr (30-day rolling average) and 3,066.0 tons/year (12-month rolling total), as determined by EPA Test Methods 7 and 19, 40 CFR 60, Appendix A;

(f) TRS – 0.0036 lbs/MMBtu not to exceed 5.04 lbs/hr and 22.1 tons/year, as determined by EPA Test Methods 16 and 19, 40 CFR 60, Appendix A;

(g) Lead (Pb) – 0.51 lbs/hr and 2.2 tons/year, as determined by EPA Test Method 12, 40 CFR 60, Appendix A;

(h) $\leq$ 20 percent Opacity

(i) 1,400 MMBtu/hr maximum heat input, based on a rolling 24-hour average

(Ref.: Permit to Construct issued September 11, 2015, and modified September 28, 2020)

3.B.25 For Emission Point AA-081, the permittee shall be limited to the following fuels: natural gas, untreated wood material other than crossties, rejects from pulp mill, coal, off-site non-wood cellulosic fiber, kraft sludge generated on-site, waste fluff pulp from CMF facility, boiler cinders from Weyerhaeuser mills in Bruce, Philadelphia, and Millport (AL), non-hazardous oil absorbent material used to clean oil leaks/spills on-site, a rolling 12-month average of 8,700 gallons/month of on specification used oil, and fuel oil. The permittee shall limit the BTU value (annual capacity factor) for a combination of fuel oil and natural gas to 10% or less and a combination of coal and fuel oil to 30% or less of the rated maximum capacity of the boiler (i.e., 1.2264×10^{13} BTU annually) based on a

rolling 12-month total. The boiler is permitted to burn the HVLC stream from Emission Point AA-033 as the primary means of destruction and the LVHC streams from Emission Points AA-032 and AA-033 as a backup for the Recovery Furnace (Emission Point AA-100).

(Ref.: Federally Enforceable Permit to Construct issued September 11, 2015, and modified September 28, 2020)

3.B.26 For Emission Point AA-081, the permittee shall meet the following emission standards:

(a) 1.2 lbs/MMBtu of SO_2 or less when combusting coal **OR** 0.5 lbs/MMBtu when combusting oil other than very low sulfur oil based on a rolling 30-day average.

(b) 0.051 lbs/MMBtu of PM since the boiler fires coal and other fuels and has an annual capacity factor for the other fuels of 10 percent or less

(c) 0.50 lbs/MMBtu of NO_x when burning coal on a rolling 30-day average (fuel oil and natural gas have a federally enforceable limit of the annual capacity factor to 10 percent)

(d) 20 percent or less Opacity based upon a six- minute average except for one (1) six-minute period per hour which cannot exceed 27%.

The emission limits in paragraphs (a) and (c) apply at all times, including periods of startup, shutdown, or malfunction. The emission limits in paragraphs (b) and (d) apply at all times, except during periods of startup, shutdown, or malfunction.

(Ref.: 40 CFR 60.42b(d), (e), and (g), 60.43b(a)(1), (f), and (g), and 60.44b(c) and (i), Subpart Db)

3.B.27 For Emission Point AA-081, the facility is subject to and shall comply with all applicable requirements of the National Emission Standard for Mercury, 40 CFR 61, Subpart E. Emissions from sludge incineration plants shall not exceed 3.2 kg (7.1 lbs) of mercury (Hg) per 24-hour period.

(Ref.: 40 CFR 61.50 and 61.52(b), Subpart E)

3.B.28 For Emission Point AA-081, the permittee shall comply with the following emission and operating limits:

(a) CO – 3,500 ppm by volume on a dry basis corrected to 3 percent O_2 (3-run average);

(b) PM (filterable) – 0.44 lbs/MMBtu of heat input;

(c) HCl – 0.022 lbs/MMBtu of heat input; and

(d) Hg – 0.0000057 lbs/MMBtu of heat input.

(e) Opacity – less than or equal to 10 percent or the highest hourly average opacity reading measured during the performance test run demonstrating compliance with the PM emission limit (daily block average)

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) through (3), and (f), 63.7505(a), and Tables 2 and 4, Subpart DDDDD)

3.B.29 For Emission Point AA-100, the emissions of particulate matter from the recovery furnace shall not exceed four (4) pounds per ton of equivalent air-dried Kraft pulp produced at any given time.

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

3.B.30 For Emission Point AA-100, the permittee shall be limited in accordance with the following emission limits:

(a) PM (filterable only) – 0.023 grains/dscf corrected to 8 percent oxygen, not to exceed 93 lbs/hr and 407.3 tons/year as determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A.

(b) PM_{10} (filterable only) – 0.023 grains/dscf corrected to 8 percent oxygen, not to exceed 93 lbs/hr and 407.3 tons/year as determined by EPA Test Method 201 or 201A.

(c) SO_2 – 200 ppm by volume on a dry basis corrected to 4 percent oxygen and not to exceed 724.2 lbs/hr and 3172.1 tons/year as determined by EPA Test Method 6C, 40 CFR 60, Appendix A.

(d) NO_X – 80 ppm by volume on a dry basis corrected to 8 percent oxygen (2-hour average) and not to exceed 272.6 lbs/hr and 1,193.9 tons/year as determined by EPA Test Method 7E, 40 CFR 60, Appendix A.

(e) CO – 300 ppm by volume on a dry basis corrected to 8 percent oxygen not to exceed 622.0 lbs/hour and 2,724.4 tons/year as determined by EPA Test Method 10, 40 CFR 60, Appendix A.

(f) VOCs (as propane) – 0.6 lbs/ton of black liquor solids (BLS) not to exceed 78.75 lbs/hr and 344.99 tons/year as determined by EPA Test Method 25, 40 CFR 60, Appendix A.

(g) TRS – 5 ppm by volume on a dry basis corrected to 8 percent oxygen, not to exceed 12.6 lbs/hr and 55.2 tons/year (as sulfide) as determined by continuous emissions monitoring (CEMS) in accordance with Condition 5.B.47.

(h) Heat input from fuel oil and natural gas combined shall not exceed 10 percent of the total heat input of the boiler based upon a rolling 12-month average (i.e., the ratio of the actual heat input from the combustion of fuel oil or natural gas to 1.6053 x 10^{13} BTU/year)

(Ref.: PSD Permit to Construct issued September 10, 1996 and modified by the Title V Operating Permit issued October 10, 2000)

3.B.31 For Emission Point AA-100, the permittee is subject to the following:

(a) SO_2 – the percent reduction requirements are not applicable since the permittee only fires very low sulfur oil;

(b) NO_x – the affected facility has an annual capacity factor limit for oil and natural gas combined of 10 percent or less; therefore, there are no applicable NO_x requirements;

(Ref.: 40 CFR 60.42b(d), 60.43b(f) and (g), 60.44b(e), Subpart Db)

3.B.32 For Emission Points AA-100 (Recovery Furnace), AA-101, (Smelt Dissolving Tank), AA-110 (Lime Kiln), and AA-113 (Incinerator with afterburner and scrubber), are subject to and shall comply with all 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.33 For Emission Point AA-100, emissions shall be limited in accordance with the following:

(a) PM – 0.044 grains/dscf corrected to 8 percent oxygen;

(b) Opacity – less than or equal to 35 percent; and

(c) TRS – 5 ppm by volume on a dry basis corrected to 8 percent oxygen

(40 CFR 60.282(a)(1)(i) and (ii), 60.283(a)(2), Subpart BB)

3.B.34 Emission Points AA-100 (Recovery Furnace), AA-101, (Smelt Dissolving Tank) and AA-110 (Lime Kiln), 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.

(Ref.: 40 CFR 63.860, Subpart MM)

3.B.35 For Emission Point AA-100, the permittee shall not emit any gases that contain a concentration of PM which exceeds 0.044 grains/dscf corrected to 8 percent oxygen.

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

3.B.36 For Emission Points AA-101 and AA-110, the permittee shall not cause or permit the emission of gas containing sulfur oxides (measured as sulfur dioxide) in excess of 500 ppm by volume.

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

3.B.37 For Emission Points AA-101 and AA-110, the permittee shall not cause or permit the emission of any gas stream which contains hydrogen sulfide (H_2S) in excess of 1 grain per 100 standard cubic feet.

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

3.B.38 For Emission Point AA-101, the smelt dissolving tank, the permittee shall not exceed the following numerical limits:

(a) PM (filterable) – 0.12 lbs per/ton of BLS, not to exceed 15.8 lbs/hr and 69.0 tons/year as determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A, or EPA-approved alternative Method 5 GD 008;

(b) PM_{10} (filterable only) – 0.12 lbs/ton of BLS, not to exceed 15.8lbs/hr and 69.0 tons/year as determined by EPA Test Methods 201 or 201A;

(b) SO_2 – 0.10 lbs/ton of BLS, not to exceed 13.3 lbs/hr and 58.0 tons/year as determined by EPA Test Method 6C, 40 CFR 60, Appendix A;

(c) TRS – 0.033 lbs/ton of BLS, not to exceed 4.0 lbs/hr and 17.5 tons/year as determined by EPA Test Method 16A/6C, 40 CFR 60, Appendix A.

(Ref.: PSD Permit to Construct issued September 10, 1996 and modified by the Title V Operating Permit issued October 10, 2000)

3.B.39 For Emission Point AA-101, the permittee shall not discharge into the atmosphere any gases containing:

(a) PM in excess of 0.2 lbs/ton of BLS (dry weight)

(b) TRS in excess of 0.033 lbs/ton of BLS as H_2S

(Ref.: 40 CFR 60.282(a)(2) and 60.283(a)(4), Subpart BB)

3.B.40 For Emission Point AA-101, the permittee shall ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.20 lbs/ton of BLS fired.

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

3.B.41 For Emission Point AA-110, the lime kiln, the permittee shall not exceed the following emission limits:

(a) PM/PM_{10} (filterable only) – 0.033 grains/dscf corrected to 10 percent oxygen, not to exceed 12.67 lbs/hr and 55.5 tons/year, determined by EPA Test Method 1-5, 40 CFR 60, Appendix A;

(b) SO_2 – 50 ppm by volume on a dry basis corrected to 10 percent oxygen, not to exceed 22.42 lbs/hr and 98.2 tons/year, as determined by EPA Test Method 6C, 40 CFR 60, Appendix A;

(c) NO_x – 300 ppm by volume on a dry basis corrected to 3.6 percent oxygen, not to exceed 60.9 lbs/hr and 266.7 tons/year, as determined by EPA Test Method 7E, 40 CFR 60, Appendix A;

(d) CO – 50 lbs/hr and 220.0 tons/year as determined by EPA Test Method 10, 40 CFR 60, Appendix A;

(e) VOCs (as propane) – 1.0 lb/ton CaO, not to exceed 17.5 lbs/hr and 76.65 tons/year as determined by EPA Test Method 25, 40 CFR 60, Appendix A

(f) TRS – 8 ppm by volume on a dry basis, corrected to 10 percent oxygen, not to exceed 1.9 lbs/hr and 8.3 tons/year as determined by EPA Test Method 16A/6C, 40 CFR 60, Appendix A;

(g) H_2S – 1 grain/100 scf, determined by EPA Test Method 16, 40 CFR 60, Appendix A.

(h) Opacity – less than or equal to 20 percent based on an average of ten (10) consecutive 6-minute averages; not to exceed 35 percent for 2 percent or more of the operating time within any semiannual period (per Subpart MM requirements).

(Ref.: PSD Permit to Construct issued September 10, 1996 and modified by the Title V Operating Permit issued October 10, 2000)

3.B.42 For Emission Point AA-110, the lime kiln, the permittee shall not discharge any gases into the atmosphere which contain the following:

(a) PM – 0.066 grains/dscf corrected to 10 percent oxygen as determined by EPA Method 5 when burning natural gas

(b) TRS – 8 ppm by volume on a dry basis corrected to 10 percent oxygen as determined by EPA Method 16

(Ref.: 40 CFR 60.282(a)(3)(i) and (a)(3)(ii) and 60.283(a)(5), Subpart BB)

3.B.43 For Emission Point AA-110, the permittee shall ensure the PM concentration in the exhaust gases discharged to the atmosphere are less than or equal to 0.064 grains/dscf corrected to 10 percent oxygen as measured by EPA Method 5.

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

3.B.44 For Emission Point AA-113, the permittee shall meet the following emission limits:

(a) PM – 7.8 lbs/hr and 34.4 tons/year measured by EPA Test Method 1-5, 40 CFR 60, Appendix A;

(b) PM_{10} – 3.0 lbs/hr and 13.3 tons/year measured by EPA Test Method 201 or 201A, 40 CFR 60, Appendix A;

(c) SO_2 – 3.1 lbs/hr and 13.7 tons/year, measured by EPA Test Method 8, 40 CFR 60, Appendix A;

(d) TRS – 5 ppm by volume not to exceed 1.2 lbs/hr and 5.3 tons/year.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified in TVOP issued October 10, 2000)

3.B.45 For Emission Point AA-032, the permittee shall not cause to be discharged into the atmosphere any gases from the steam stripper which contain TRS in excess of 5 ppm by volume on a dry basis corrected to 10 percent oxygen unless the gases are combusted in an incinerator where they are subjected to a minimum temperature of 1,200° F for at least 0.5 seconds. [The LVHC gases from the stream stripper are routed through either the Recovery Furnace, Emission Point AA-100 (primary), or the Power Boiler, Emission Point AA-081 (back up), so the TRS limit from Subpart BB is not applicable.]

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

3.B.46 For Emission Points AA-400, AA-401, AA-402, AA-403, AA-404, AA-405 and AA-406, 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.B.47 Emission Points AA-400, AA-401, AA-402, AA-403, AA-404, AA-405 and AA-406, 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 General Provisions, 40 CFR 63, Subpart A.

Emission Points AA-402, AA-403, and AA-404 are considered existing, emergency, compression ignition (CI) stationary RICE located at a major source of HAP emissions and Emission Point AA-405 is considered an existing, emergency, spark ignition (SI) stationary RICE located at a major source of HAP emissions. These engines shall comply with all applicable requirements of Subpart ZZZZ.

Emission Point AA-400 is considered a new, **non-emergency** CI stationary RICE with a site rating less than 500 brake HP and Emission Points AA-401, and AA-406 are considered new, **emergency**, compression ignition (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 for Emission Points AA-400, AA-401, and AA-406.

(Ref.: 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE); 40 CFR 63.6585(b), 63.6590(a)(1)(ii) and (2)(ii), 63.6590(c)(6) and (c)(7).)

3.B.48 Emission Points AA-402, AA-403, AA-404 and AA-405 shall be considered emergency stationary RICE under Subpart ZZZZ provided the engines only operate 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 MDEQ 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). Except as provided in 63.6640(f)(4)(i) and (ii), 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), (2), and (4), Subpart ZZZZ)

3.B.49 Emission Points AA-400, AA-401, and AA-406 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)(i), Subpart IIII)

3.B.50 For Emission Point AA-400, AA-401, and AA-406, 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-400 (non-emergency)
(1) NMHC ≤ 0.19 g/kW-hr
(2) NO_x ≤ 0.40 g/kW-hr
(3) CO ≤ 5.0 g/kW-hr
(4) PM (filterable) ≤ 0.02 g/kW-hr

(b) AA-401 and AA-406 (emergency)
(1) NMHC + NO_x ≤ 4.0 g/kW-hr
(2) CO ≤ 3.5 g/kW-hr
(3) PM ≤ 0.20 g/kW-hr

(Ref.: 40 CFR 60.4201(a), 60.4204(b), 60.4202(a)(2), 60.4205(b), and 60.4206, Subpart IIII; 40 CFR 89.112(a) and 89.113(a), Subpart B; and Table 5 of 1039.102, 1039.105(b), Subpart B)

3.B.51 For Emission Points AA-400, AA-401, and AA-406, the permittee shall limit the opacity of the exhaust to the following:

(a) ≤ 20 percent during the acceleration mode;

(b) ≤ 15 percent during the lugging mode;

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

(Ref.: 40 CFR 89.113(a), Subpart B and 40 CFR 1039.105(b), Subpart B)

3.B.52 For Emission Points AA-400, AA-401, and AA-406, 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 and 80.510(c))

3.B.53 For Emission Points AA-400, AA-401, and AA-406, 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)(1)-(3) and (c), Subpart IIII)

3.B.54 For Emission Points AA-401 and AA-406, 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), (2)(i), and (3), Subpart IIII)

3.B.55 Emission Points AA-060, AA-080, AA-081, AA-100, AA-101, AA-110, and AA-113, are subject to the provisions of Compliance Assurance Monitoring (CAM), 40 CFR 64 for the following:

(a) PM for Emission Point AA-060 (Pulp Machine Winder with Venturi Scrubber);

(b) NO_x for Emission Point AA-080 (Natural Gas Package Boiler with Flue Gas Recirculation);

(c) PM for Emission Point AA-081 (1,400 MMBTU/hr Power Boiler with ESP);

(d) PM for Emission Point AA-100 (BLS Recovery Furnace with ESP);

(e) PM, SO_2, and TRS for Emission Point AA-101 (Smelt Dissolving Tank with Wet Scrubber);

(f) PM for Emission Point AA-110 (Lime Kiln with ESP); and

(g) SO_2 for Emission Point AA-113 (Natural Gas NCG Incinerator with Wet Scrubber) and shall comply with the CAM Plans in Appendix B of this permit.

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

C. Insignificant and Trivial Activity Emission Limitations & Standards

Applicable Requirement	Condition Number	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	Pollutant/ Parameter	Limit/Standard
AA-080 AA-081	40 CFR 63.7500(a)(1) and (c), 63.7515(d), 63.7540(a)(10)(i)-(vi) and (12), and Table 3, Subpart DDDDD	3.D.1	HAPs	Tune-Up Requirements
AA-081	40 CFR 63.7500(f), 63.7540(d), and Items 5 and 6 of Table 3, Subpart DDDDD.	3.D.2		Startup and Shutdown Conditions
AA-402 AA-403 AA-404 AA-405	40 CFR 63.6602 and Table 2c, Subpart ZZZZ	3.D.3	HAPs	Maintenance Requirements
	40 CFR 63.6605(a) and (b), Subpart ZZZZ	3.D.4		General Compliance Requirements
	40 CFR 63.6625(e)(2) and (h), 63.6640(a) and Table 6, Subpart ZZZZ	3.D.5		Operating Requirements

3.D.1 For Emission Point AA-081, 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. For Emission Point AA-080, the permittee shall conduct a tune-up every five years with each subsequent tune-up being completed no more than 61 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 MDEQ, 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) and (c), 63.7515(d), 63.7540(a)(10)(i)-(vi) and (12), and Table 3, Subpart DDDDD.)

3.D.2 For Emission Point AA-081, 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), and Items 5 and 6 of Table 3, Subpart DDDDD)

3.D.3 For Emission Points AA-402, AA-403, AA-404, and AA-405, 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) for the CI engines or (j) for the SI engine.

(b) Inspect air cleaner (CI engines) or spark plugs (SI engine) 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 Points AA-402, AA-403, AA-404, and AA-405, 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 Points AA-402, AA-403, AA-404, and AA-405, 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. 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.

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

5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such

deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) days of the time the deviation began.

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

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

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

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

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

B. Specific Monitoring and Recordkeeping Requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-010	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.1	PM / PM_{10}	Monthly Inspections and Recordkeeping
		5.B.2		Visible emission observations, recordkeeping
		5.B.3		Stack Test Once Every Five Years
AA-011	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.2	Opacity	Visible Emission Observations
AA-031	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.4	CO	Stack Test Once Every Five Years
AA-031 AA-032 AA-033 AA-034 AA-050	40 CFR 63.453(a), 63.453(m), and 63.453(n), Subpart S	5.B.5	HAPs	Continuous Monitoring
AA-032 AA-033 AA-050	40 CFR 63.453(k), Subpart S	5.B.6	HAPs	Monitoring of Enclosures and Closed-Vent Systems
AA-031	40 CFR 63.453(m), Subpart S	5.B.5	HAPs	Clean Condensate Alternative Continuous Monitoring
	40 CFR 63.447(c), Subpart S	5.B.7		Calculate HAP Emissions
	40 CFR 63.447(d), Subpart S	5.B.8		Determine Baseline HAP emissions
	40 CFR 63.447(e), Subpart S	5.B.9		Determine HAP Emission Reductions
	40 CFR 63.447(f), Subpart S	5.B.10		Alternative Method to Determine HAP Emissions and Reductions
AA-033 (CTO only)	11 Miss. Admin Code, Pt. 2, R. 6.3.A(3)(a)(2).	5.B.11	HAPs	Monitor pH and Maintain Above 11
		5.B.12		Monitor Vacuum
AA-034	40 CFR 63.453(l), Subpart S	5.B.13	HAPs	Monitoring of Closed Collection Systems
AA-050	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.14	CO	Biennial Stack Test
AA-071	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.15	Equipment Operation	Monitoring and Recordkeeping

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-060	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.16	PM / PM_{10}	Biennial Stack Test
	40 CFR 64.3(a) and (b), and 64.6(c), Compliance Assurance Monitoring	5.B.70	Pressure Drop	Measure Daily Average Pressure Drop
AA-071	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.17	CO	Stack Testing Once Every Five Years
AA-080	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.18	Oxygen	Install and Operate Stack Gas Analyzer
		5.B.19	SO_2	Biennial Stack Test when Combusting HVLC Gases
	40 CFR 60.49b(d)(1), Subpart Db	5.B.20	Fuel	Monitor and Record Fuel Usage and Calculate Annual Capacity Factor
	40 CFR 60.49b(p), Subpart Db	5.B.21	Operating Information	Monitor and Record Date, Hours of Operation, and Hourly Steam Load
	40 CFR 60.46b(h)(2), Subpart Db	5.B.22	NO_X	Stack Test Annually or Every 400 Hours
	40 CFR 63.7525(k) and 63.7555(a)(3), Subpart DDDDD	5.B.23	Fuel	Monitor Fuel Usage and Keep Records
	40 CFR 64.3(a) and (b), and 64.6(c), Compliance Assurance Monitoring	5.B.70	FGR Damper Position, Flue Gas O_2	Visually Observe FGR damper Position Daily and Continuously Monitor the O_2 Concentration in the Flue Gas
AA-081	Permit to Construct issued September 11, 2015, and modified September 28, 2020 *"Multiple Fuel Power Boiler LVHC NCG Project"*	5.B.24	Hours of Operation – NCG Gases	HVLC Gas Monitoring and Recordkeeping
		5.B.25	CO VOCs TRS Lead	Biennial Stack Test
		5.B.26	SO_2 NO_X	Use CEMS Required by 40 CFR 60, Subpart Db to Demonstrate Compliance with lb/hr and tpy Limits
	40 CFR 60.49b(d)(1), Subpart Db	5.B.27	Fuel Usage	Monitor Fuel Usage and Calculate Annual Capacity Factor
	40 CFR 60.47b(a) and (d), Subpart Db	5.B.28	SO_2	CEMS
	40 CFR 60.48b(b)(1), (e) and (f), Subpart Db	5.B.29	NO_X	

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-081	40 CFR 60.48b(a) and (e), Subpart Db	5.B.30	Opacity	COMS
	40 CFR 61.53(d) and 61.55(a), Subpart E	5.B.31	Hg	Performance Testing or Sampling
	40 CFR 63.7505(d) and 63.7520(a), Subpart DDDDD and 40 CFR 63.7(c), Subpart A	5.B.32	HAPs	Develop Site-Specific Monitoring and Stack Testing Plans
	40 CFR 63.7540(a)(2) and 63.7555(d)(1), Subpart DDDDD	5.B.33		Monthly Fuel Records
	40 CFR 63.7510(a) and (b), 63.7515(a) through (c), and 63.7520(b), (c), and (e), Subpart DDDDD	5.B.34		Performance Testing
	40 CFR 63.7530(c)(1) through (4), Subpart DDDDD	5.B.35	HAPs	Fuel Analysis
	40 CFR 63.7525(c), 63.7530(a), 63.7540(a), and Table 8, Subpart DDDDD	5.B.36	HAPs (PM)	Establish Operating Limits for CPMS
	40 CFR 63.7525(a), 63.7530(b)(4)(viii), and Table 7, Subpart DDDDD	5.B.37	HAPs (CO)	Establish Minimum Oxygen Level Operating Limit
	40 CFR 63.7535, Subpart DDDDD	5.B.38	HAPs	Required Monitoring Data
	40 CFR 63.7555(a), (b), (c), (d)(3) through (7), (d)(9) and (10) and 63.7560, Subpart DDDDD	5.B.39		Recordkeeping
	40 CFR 64.3(a) and (b), and 64.6(c), Compliance Assurance Monitoring	5.B.70	Opacity	Continuously Measure Opacity
AA-100	PSD Permit to Construct issued September 10, 1996 and modified by the Title V Operating Permit issued on October 10, 2000	5.B.40	PM / PM_{10} SO_2 NO_X CO VOCs	Biennial Stack Testing
		5.B.41	BLS Feed Rate	Monitor and Record BLS Feed Rate
	40 CFR 60.47b(f), Subpart Db	5.B.42	SO_2	Fuel Monitoring
	40 CFR 60.48b(a) and 60.49b(f), Subpart Db	5.B.43	Opacity	COMS
	40 CFR 60.49b(d)(1), Subpart Db	5.B.44	Fuel Usage	Monitor Fuel Usage and Determine Annual Capacity Factor

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-100	40 CFR 60.49b(o), Subpart Db	5.B.45	SO_2 Opacity Fuel Usage	Recordkeeping
	40 CFR 60.284(a)(1) and (f), Subpart BB	5.B.46	Opacity	COMS
	40 CFR 60.284(a)(2) and (c), Subpart BB 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.47	TRS Oxygen	Continuous Monitoring Systems Used to Monitor, Record, and Calculate TRS and Oxygen Concentrations
	40 CFR 60.285(b), Subpart BB	5.B.48	PM	Stack Test to Determine Compliance
	40 CFR 63.864(d)(3) and (4), (k)(1)(i), and (k)(2)(i) and 63.866(b), Subpart MM	5.B.49	Opacity	COMS
	40 CFR 63.864(e)(1), Subpart MM	5.B.50	Operating Parameter	Proper operation of the ESP Automatic Voltage Control
	40 CFR 63.863(c) and 63.865, Subpart MM	5.B.51	HAPs	Stack Testing
	40 CFR 63.866(c)(1), (4), and (8) and (d)(1) through (3), Subpart MM	5.B.52	HAPs	Recordkeeping
	40 CFR 64.3(a) and (b), and 64.6(c), Compliance Assurance Monitoring	5.B.70	Opacity	Continuously Measure Opacity
AA-101	PSD Permit to Construct issued September 10, 1996 and modified by the Title V Operating Permit issued October 10, 2000	5.B.53	PM / PM_{10} SO_2 TRS	Biennial Stack Testing
		5.B.41	BLS Feed Rate	Monitor and Record BLS Feed Rate
	40 CFR 60.284(b)(2) and (c)(4), Subpart BB and EPA Approved Alternative Monitoring	5.B.54	Operating Parameters	Monitoring Scrubbing Liquid Supply Pressure and Fan Amperage
	40 CFR 60.285(c), Subpart BB	5.B.55	PM	Determine Compliance with PM and TRS Standards
	40 CFR 60.285(e) and (f)(2), Subpart BB	5.B.56	TRS	
	40 CFR 63.864(e)(10)(ii) and (iii) and (j) and 63.866(c)(3), Subpart MM and EPA Approved Alternative Monitoring	5.B.57	Operating Parameters	Monitor and Record the Scrubbing liquid flow rate and fan amperage
	40 CFR 63.863(c) and 63.865, Subpart MM	5.B.51	PM	Stack Testing

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-101	40 CFR 63.864(k)(1)(ii) and (2)(iv), and 63.866(b), Subpart MM	5.B.58	PM	Corrective Actions
	40 CFR 63.866(c)(4) and (5) and (d), Subpart MM	5.B.59	Operating Parameters	Recordkeeping
	40 CFR 64.3(a) and (b), and 64.6(c), Compliance Assurance Monitoring	5.B.70	Supply Pressure and Fan Amperage	Continuously Monitor Scrubber Liquid Supply Pressure and Scrubber Fan Amperage
AA-110	PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000	5.B.60	Fuel Monitoring	Monitoring and Recordkeeping
		5.B.61	PM / PM_{10} SO_2 NO_X CO VOCs	Biennial Stack Testing
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.62	TRS	Calculate Monthly Average lbs/hr Emissions
	40 CFR 60.284(a)(2) and (c), Subpart BB	5.B.47	TRS Oxygen	CPMS
	40 CFR 60.285(b), Subpart BB	5.B.48	PM	Stack Test to Determine Compliance
	40 CFR 63.864(d)(3) and (4), (k)(1)(i), and (k)(2)(iii) and 63.866(b), Subpart MM	5.B.63	Opacity	COMS
	40 CFR 63.864(e)(1), Subpart MM	5.B.50	Operating Parameter	Proper Operation of the ESP Automatic Voltage Control
	40 CFR 63.863(c) and 63.865, Subpart MM	5.B.51	HAPs	Stack Testing
	40 CFR 63.866(c)(2), (4), and (8) and (d)(1) through (3), Subpart MM	5.B.52	HAPs	Recordkeeping
	40 CFR 64.3(a) and (b), and 64.6(c), Compliance Assurance Monitoring	5.B.70	Opacity	Continuously Measure Opacity
AA-113	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.64	Operating Records	Monitor and Record Periods when LVHC Gasses are Controlled Elsewhere
	PSD Permit to Construct issued September 10, 1996, and modified in TVOP issued October 10, 2000	5.B.65	PM / PM_{10} (filterable) SO_2	Biennial Stack Test
	40 CFR 60.284(b)(1), Subpart BB	5.B.66	Temperature	Monitor Combustion Temperature

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-113	40 CFR 64.3(a) and (b), and 64.6(c), Compliance Assurance Monitoring	5.B.70	Flow Rate and pH	Continuously Monitor Scrubber Solution Flow Rate and pH
AA-402 AA-403 AA-404 AA-405	40 CFR 63.6625(f) and 63.6655(f)(1), Subpart ZZZZ	5.B.67	HAPs	Install Non-Resettable Hour Meter and Record Hours of Operation
	40 CFR 63.6655(a)(1), (2), and (5) and (e)(2) and 63.6660, Subpart ZZZZ	5.B.68		General Recordkeeping
AA-401 AA-406	40 CFR 60.4209(a) and 60.4214(b), Subpart IIII	5.B.69	NMHC + NO_X, PM (filterable only), CO, SO_2	Install Non-Resettable Hour Meter and Record Hours of Operation
AA-060 AA-080 AA-081 AA-100 AA-101 AA-110 AA-113	40 CFR 64.7(b) and (c), Compliance Assurance Monitoring	5.B.71	PM NO_X SO_2	Operation and Maintenance Requirements for Monitoring System(s)
	40 CFR 64.7(d), Compliance Assurance Monitoring	5.B.72		Corrective Action Rsponse to an Excursion / Exceedance of a CAM Indicator
AA-060 AA-080 AA-081 AA-100 AA-101 AA-110 AA-113	40 CFR 64.8, Compliance Assurance Monitoring	5.B.73	PM NO_X SO_2	Upon Request by DEQ, Develop a Quality Improvement Plan (QIP)
	40 CFR 64.9(b), Compliance Assurance Monitoring	5.B.74		Maintain CAM Records (as specified)

5.B.1 For Emission Point AA-010 and the associated ductwork, the permittee shall comply with the PM limits by performing regular monthly inspections. Necessary repairs should be made immediately after discovery. Records of these inspections as well as any associated maintenance shall be kept in log form for five years and made available for review upon request during any inspection visit by the DEQ.

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

5.B.2 For Emission Points AA-010 and AA-011, the permittee shall perform weekly Method 22 Visible Emissions Observations. If visible emissions are observed, a certified Method 9 reader shall perform a Method 9 Visible Emission Evaluation (VEE). If no visible emissions are observed for two consecutive weeks, the visible emissions observations may be reduced to monthly. If the frequency of the observations has been reduced to monthly and visible emissions are observed, the permittee shall return to weekly observations until such time two consecutive weekly observations with no emissions are completed. Records of these visible observations shall be kept in log form for five years and made available for review upon request during any inspection visit the DEQ.

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

5.B.3 For Emission Point AA-010, the permittee shall demonstrate compliance with the applicable PM/PM_{10} limits by stack testing once every five years in accordance with EPA Reference Methods 1-5, 40 CFR 60, Appendix A.

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

5.B.4 For Emission Point AA-031, the permittee shall demonstrate compliance with the annual CO emission limit by stack testing once every five years in accordance with EPA Reference Method 10.

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

5.B.5 For Emission Points AA-031, AA-032, AA-033, AA-034, and AA-050, 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).

(a) For Emission Point AA-031, the permittee shall comply with the alternative continuous compliance monitoring approved by DEQ under the Clean Condensate Alternative.

(b) For AA-050, when the Mill's brightness target is 87.5% or higher, pH will be maintained at or above 6.0, as determined by instantaneous sampling conducted every three (3) hours. When the Mill's brightness target is below 87.5%, pH will be maintained at or above 5.5, as determined by instantaneous sampling conducted every three (3) hours, and caustic will be added to the top of the D1 tower at a minimum rate of 3.0 gallons per minute (gpm), as continuously measured by the CMS and averaged for each three-hour block period beginning at 6:00 a.m. The pH and three-hour average flow rate shall be recorded in accordance with Condition 5.A.3.

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

5.B.6 For Emission Points AA-032, AA-033, and AA-050, 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.7 For Emission Point AA-031, the permittee shall calculate HAP emissions on a kilogram per megagram of ODP basis and measure HAP emissions according to the appropriate procedures contained in 40 CFR 63.457.

(Ref.: 40 CFR 63.447(c), Subpart S)

5.B.8 For Emission Point AA-031, the permittee shall determine the baseline HAP emissions for each equipment system and the total of all equipment systems in the clean condensate alternative affected source based on the following:

(a) Process and air pollution control equipment installed and operating on December 17, 1993, and

(b) Compliance with the following requirements that affect the level of HAP emissions from the clean condensate affected source:

(1) The pulping process condensates requirements in 40 CFR 63.446;

(2) The applicable effluent limitation guidelines and standards in 40 CFR 430, Subparts A, B, D, and E; and

(3) All other applicable requirements of local, State, or Federal agencies or statutes.

(Ref.: 40 CFR 63.447(d), Subpart S)

5.B.9 For Emission Point AA-031, the permittee shall determine the following HAP emission reductions from the baseline HAP emissions determined in Condition 5.B.8 for each equipment system and the total of all equipment systems in the clean condensate alternative affected source:

(a) The HAP emission reduction occurring by complying with the requirements of 40 CFR 63.443(a)(1)(ii) through (a)(1)(v); and

(b) The HAP emissions reduction occurring by complying with the clean condensate alternative technology.

(Ref.: 40 CFR 63.447(e), Subpart S)

5.B.10 For Emission Point AA-031, the permittee may use as an alternative, individual equipment systems (instead of total of all equipment systems) within the clean condensate affected source to determine emissions and reductions to demonstrate equal or greater than the reductions that would have been achieved by complying with 40 CFR 63.443(a)(1)(ii) through (a)(1)(v).

(Ref.: 40 CFR 63.447(f), Subpart S)

5.B.11 For Emission Point AA-033, the permittee shall continuously monitor he pH on the recirculated scrubber liquid in the CTO reactor system scrubber and record the hourly average and 3-hour rolling average pH.

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

5.B.12 For Emission Point AA-033, the permittee shall continuously monitor the vacuum on the CTO reactor tank farthest from the CTO reactor system scrubber.

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

5.B.13 For Emission Point AA-034, the permittee shall comply with the following requirements for the pulping process condensate closed collection system:

(a) Visually inspect the pulping process condensate closed collection system every 30 days and comply with the inspection and monitoring requirements specified in 40 CFR 63.964 of Subpart RR, except:

(1) The permittee shall comply with the recordkeeping requirements of 40 CFR 63.454 instead of the requirements specified in 40 CFR 63.964(a)(1)(vi) and (b)(3).

(2) The permittee shall comply with the inspection and monitoring requirements for closed-vent systems and control devices specified in Condition 5.B.6 instead of the requirements specified in 40 CFR 63.964(a)(2).

(b) Each condensate tank used in the closed collection system shall be operated with no detectable leaks as specified in Condition 3.B.11(a)(1) and measured annually.

(c) If an inspection required by paragraphs (a) or (b) identifies visible defects in the closed collection system, or if an instrument reading of 500 ppm or greater above background is measured, then corrective actions specified in 40 CFR 63.964(b) shall be taken.

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

5.B.14 For Emission Point AA-050, the permittee shall demonstrate compliance with the CO limit by stack testing biennially in accordance with EPA Reference Method 10.

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

5.B.15 For Emission Point AA-071, the permittee shall monitor and record any occurrence when the bleach plant vent and chilled water scrubbing for the chlorine dioxide generator is not in operation. The permittee shall record the date, time, and duration of each occurrence.

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

5.B.16 For Emission Point AA-060, the permittee shall demonstrate compliance with the applicable PM/PM_{10} limits by stack testing biennially in accordance with EPA Reference Methods 1-5, 40 CFR 60, Appendix A.

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

5.B.17 For Emission Point AA-071, the permittee shall demonstrate compliance with the CO emission limit by stack testing once every five years in accordance with EPA Reference Method 10.

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

5.B.18 For Emission Point AA-080, the permittee shall operate and maintain a stack gas analyzer with feedback control on the air to fuel ratio controller.

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

5.B.19 For Emission Point AA-080, the permittee shall demonstrate compliance with the SO_2 emission limits by stack testing biennially in accordance with EPA Reference Method 6C. The stack test shall be conducted when the unit is combusting HVLC gases.

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

5.B.20 For Emission Point AA-080, the permittee shall record and maintain records of the amount of natural gas combusted on a daily basis and calculate the annual capacity factor based upon a rolling 12-month average basis. A new annual capacity factor shall be calculated each calendar month.

(Ref.: 40 CFR 60.49b(d)(1), Subpart Db.)

5.B.21 For Emission Point AA-080, anytime the boiler is placed into operation, the permittee shall record the calendar date, the hours of operation, and the hourly steam load.

(Ref.: 40 CFR 60.49b(p), Subpart Db)

5.B.22 For Emission Point AA-080, the permittee shall stack test annually or every four hundred hours of operation (whichever comes first) to demonstrate compliance with the NO_x emission standard over a minimum of three (3) consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, or 7E of Appendix A of 40 CFR 60, Method 320 of Appendix A of 40 CFR 63, or other approved methods.

(Ref.:40 CFR 60.46b(h)(2), Subpart Db.)

5.B.23 For Emission Point AA-080, the permittee shall keep fuel usage records for the days the boiler was in operation.

(Ref.: 40 CFR 63.7525(k) and 63.7555(a)(3), Subpart DDDDD)

5.B.24 For Emission Point AA-081, the permittee shall record the date, start time, and duration each time the HVLC stream from Emission Point AA-033 is diverted from the Multiple Fuel Power Boiler (Emission Point AA-081) to the Package Boiler (Emission Point AA-080).

(Ref.: Permit to Construct issued September 11, 2015, and modified September 28, 2020)

5.B.25 For Emission Point AA-081, the permittee shall demonstrate compliance with the applicable emission limits by stack testing biennially for CO in accordance with EPA

Reference Method 10, VOC in accordance with EPA Reference Method 25, TRS in accordance with EPA Reference Method 16A/6C, and Lead in accordance with EPA Reference Method 12.

(Ref.: Permit to Construct issued September 11, 2015, and modified September 28, 2020)

5.B.26 For Emission Point AA-081, the permittee shall demonstrate compliance with the lb/hr and tpy limits on SO_2 and NO_x by using the CEMS required in Conditions 5.B.26 and 5.B.27, respectively. The permittee shall demonstrate compliance with the lb/hr SO_2 limit on a 12-month rolling average basis, determined at the end of each month, and with the lb/hr NO_x limit on a 30-day rolling average basis, determined using the averaging procedures in 40 CFR 60, Subpart Db. The permittee shall demonstrate compliance with both the annual SO_2 and NO_x tpy limits by determining the annual emissions for each consecutive 12-month period.

(Ref.: Permit to Construct issued September 11, 2015, and modified September 28, 2020)

5.B.27 For Emission Point AA-081, the permittee shall record and maintain records of the amounts of each fuel combusted each day. These records shall be used to calculate the rolling 12-month average annual capacity factor for coal, natural gas, and oil. A new annual capacity factor shall be calculated at the end of each month.

(Ref.: 40 CFR 60.49b(d)(1), Subpart Db)

5.B.28 For Emission Point AA-081, the permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) for measuring SO_2 concentrations and either O_2 or CO_2 concentrations and shall record the output of the systems. Data shall be recorded during all periods of operation except for CEMS breakdowns and repairs. The 1-hour average SO_2 emission rates measured by the continuous monitor as required under 40 CFR 60.13(h) shall be expressed in lbs/MMBtu heat input and shall be used to calculate the average emission rate based upon a rolling 30-day average. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). The steam generating unit must operate at least 30 minutes for each one hour to calculate an average hourly SO_2 emission rate. Hourly SO_2 emission rates are not calculated if the unit is not operating for 30 minutes or more in a given clock hour. The permittee shall obtain emission data for at least 75% of the operating hours in at least 22 of 30 successive boiler operating days to meet the minimum data requirements to calculate the rolling 30-day average. Otherwise, the permittee shall supplement the emission data with other monitoring systems as approved by the DEQ or the reference methods and procedures as described in 40 CFR 60.47b(b).

The permittee shall certify SO_2 and O_2 or CO_2 CEMS monitoring is in accordance with 40 CFR 60.47b for relative accuracy and the procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS under 40 CFR 60.47b.

(Ref.: 40 CFR 60.47b(a) and (d), Subpart Db)

5.B.29 For Emission Point AA-081, the permittee shall install, calibrate, maintain, and operate CEMS for measuring NO_x and O_2 or CO_2 emissions discharged to the atmosphere and record the output of the system. Data shall be recorded during all periods of operation except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. The 1-hour average NO_x emission rates measured by the continuous monitor required under 40 CFR 60.13(h) shall be expressed in lbs/MMBtu heat input and shall be used to calculate the average emission rate. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). At least two data points shall be used to calculate each 1-hour average during hours in which a calibration occurs. During normal operation, four data points are required to calculate a 1-hour average.

The procedures under 40 CFR 60.13 shall be followed for the installation, evaluation, and operation of the continuous monitoring system and the span value for NO_x shall be determined as outlined in 40 CFR 60.48b(e)(2).

When NO_x emissions data are not obtained because of CEMS breakdowns, repairs, calibration check and zero and span adjustments, emissions data will be obtained by using standby monitoring systems, Method 7, 7A, or other approved reference methods to provide emissions data for a minimum of 75% of the operating hours in each operating day, in at least 22 out of 30 successive operating days.

(Ref.: 40 CFR 60.48b(1), (e), and (f), Subpart Db)

5.B.30 For Emission Point AA-081, the permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for purposes of measuring opacity of emissions discharged to the atmosphere and record the output of the system. The procedures under 40 CFR 60.13 and Performance Specification 1 of 40 CFR 60, Appendix B shall be followed for installation, evaluation, and operation of the COMS.

(Ref.: 40 CFR 60.48b(a) and (e), Subpart Db)

5.B.31 For Emission Point AA-081, the permittee shall demonstrate compliance with the mercury emission standard for wastewater treatment plant sludge by stack sampling once per permit term (on or before the first biennial test (CO/VOC/TRS/Lead) of the permit term) in accordance with EPA Reference Methods 101A in Appendix B of 40 CFR 60 or Method 29 in Appendix A of 40 CFR 60. As an alternative, the permittee may demonstrate compliance using EPA Reference Method 105 of Appendix B and the sludge sampling procedures under 40 CFR 61.54. If mercury emissions exceed 1,600 grams (3.5 lbs) per 24-hour period, the permittee shall monitor mercury emissions at least annually using the methods identified above for the remainder of the permit term.

(40 CFR 61.53(d) and 61.55(a), Subpart E)

5.B.32 For Emission Point AA-081, 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) and 63.7520(a), Subpart DDDDD and 40 CFR 63.7(c), Subpart A)

5.B.33 For Emission Point AA-081, 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 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.34 For Emission Point AA-081, 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% 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% of the emission limit, the permittee must resume annual testing until such time the performance tests over a two-year period fall below 75% 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 lbs/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) and (b), 63.7515(a) through (c), and 63.7520(b), (c), and (e), Subpart DDDDD)

5.B.35 For Emission Point AA-081, 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

$$P90 = mean + (SD \times t)$$

where P90 is the 90th percentile confidence level pollutant concentration in lbs/MMBtu, mean is the arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to 40 CFR 63.7521, in lbs/MMBtu, SD is the standard deviation of the mean of pollutant concentration in the fuel samples analyzed according to 40 CFR 63.7521 in lbs/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 ($t_{0.1}$) 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

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

Where HCl is the HCl emission rate from the boiler in lbs/MMBtu; Ci90 is the 90th percentile confidence level concentration of chlorine in fuel type in lbs/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 lbs/MMBtu; Hgi90 is the 90th percentile confidence level concentration of mercury in fuel in

lbs/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) through (4), Subpart DDDDD)

5.B.36 For Emission Point AA-081, the permittee shall demonstrate continuous compliance with the PM emission limits by installing, operating, certifying, and maintaining a COMS in accordance with Performance Specification 1 of Appendix B in 40 CFR 60 and the following:

(a) The permittee shall conduct a performance evaluation of the COMS according to the requirements in 40 CFR 63.8(e) and Performance Specification 1.

(b) The 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.

(c) The COMS data must be reduced as specified in 40 CFR 63.8(g)(2).

(d) The site-specific monitoring plan must contain procedures and acceptance criteria for operating and maintaining each COMS according to the requirements of 40 CFR 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of the COMS.

(e) The permittee shall operate and maintain the COMS according to the requirements in the monitoring plan and the requirements of 40 CFR 63.8(e). The permittee shall identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or annual zero alignment audit. Any 6-minute period for which the monitoring system is out of control and data is not available for a required calculation constitutes a deviation from the monitoring requirements.

(f) The permittee shall determine and record all the 6-minute averages (and daily block averages as applicable) collected for periods during which the COMS is not out of control.

(Ref.: 40 CFR 63.7525(c), 63.7530(a), 63.7540(a), and Table 8, Subpart DDDDD)

5.B.37 For Emission Point AA-081, the permittee shall demonstrate continuous compliance with the CO emission limits by establishing the minimum oxygen level to be monitored by the oxygen analyzer system installed, certified, operated and maintained in accordance with 40 CFR 63.7525(a)(1) through (6). 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 your minimum operating limit.

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

5.B.38 For Emission Point AA-081, the permittee shall collect data in accordance with the following and the site-specific monitoring plan required in Condition 5.B.32:

(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.39 For Emission Point AA-081, 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 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.

(e) A copy of all calculations and supporting documentation of chlorine and mercury emission rates fuel input using the equations in Condition 5.B.35 that were done to demonstrate continuous compliance with the applicable emission limits. Supporting documentation should include results of any fuel analyses and basis for the estimates of emission rates.

(f) If the permittee chooses to stack test less frequently than annually per Condition 5.B.34, 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)(3) through (7), (d)(9) and (10) and 63.7560, Subpart DDDDD)

5.B.40 For Emission Point AA-100, the permittee shall demonstrate compliance with the emission limits by stack testing biennially for PM/PM_{10} using EPA Reference Method 5, SO_2 using EPA Reference Method 6C, NO_x using EPA Reference Method 7, CO using EPA Reference Method 10, and VOC using EPA Reference Method 25.

(Ref.: PSD Permit to Construct issued September 10, 1996 and modified by the Title V Operating Permit issued October 10, 2000.)

5.B.41 For Emission Points AA-100 and AA-101, the permittee shall record and maintain records of the daily black liquor solids (BLS) feed rate in tons per day and maintain record of the rolling 365-day average BLS feed rate.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000)

5.B.42 For Emission Point AA-100, the permittee shall obtain and maintain records at the facility of all fuel receipts from the fuel supplier that certify the oil meets the definition of distillate oil.

(Ref.: 40 CFR 60.47b(f), Subpart Db)

5.B.43 For Emission Point AA-100, the permittee shall install, calibrate, maintain, and operate a COMS for measuring opacity of emissions discharged to the atmosphere and record the output of the system. The permittee shall maintain records according to the requirements specified in the site-specific monitoring plan approved by the DEQ.

(Ref.: 40 CFR 60.48b(a) and 60.49b(f), Subpart Db)

5.B.44 For Emission Point AA-100, the permittee shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for oil and natural gas. The annual capacity factor is determined on a rolling 12-month average basis with a new annual capacity factor calculated at the end of each calendar month.

(Ref.: 40 CFR 60.49b(d)(1), Subpart Db)

5.B.45 For Emission Point AA-100, the permittee shall maintain all records required under Subpart Db for a period of two (2) years following the date of such record.

(Ref.: 40 CFR 60.49b(o), Subpart Db)

5.B.46 For Emission Point AA-100, the permittee shall install, calibrate, maintain, and operate a COMS to record the opacity of gases discharged into the atmosphere using the procedures in 40 CFR 60.13 and Performance Specification 1 of Appendix B, 40 CFR 60. The span of this system shall be set at 70 percent opacity.

(Ref.: 40 CFR 60.284(a)(1) and (f), Subpart BB)

5.B.47 For Emission Points AA-100 and AA-110, the permittee shall install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the concentration of TRS emissions on a dry basis and the percent oxygen by volume on a dry basis in the gases discharged into the atmosphere. The spans of the continuous monitoring systems shall be set at a TRS concentration of 30 ppm and at 25 percent oxygen. The data collected from the monitoring systems shall be used to calculate and record the following:

(a) The 12-hour average TRS concentrations for the two consecutive periods of each operating day. Each 12-hour average shall be determined as the arithmetic mean of the appropriate 12 contiguous 1-hour average TRS concentrations.

(b) The 12-hour average oxygen concentrations for the two consecutive periods of each operating day. These 12-hour averages shall correspond to the 12-hour average TRS concentration under paragraph (a) and shall be determined as an arithmetic mean of the appropriate 12 contiguous 1-hour average oxygen concentrations.

(c) To be included in the 12-hour average, each hour used shall have both a valid TRS and O_2 one-hour average. A minimum of one (1) valid hour is needed to calculate a 12-hour average.

(d) Correct all 12-hour average TRS concentrations to 10 volume percent oxygen (lime kiln) or 8 volume percent oxygen (recovery furnace) using the equation:

$$Ccorr = C\ meas \times (21 - X)/(21 - Y)$$

where “Ccorr” is the concentration corrected for oxygen; “Cmeas” is the concentration uncorrected for oxygen; X is the volumetric oxygen concentration in percentage to be corrected to 8 percent; and Y is the measured 12-hour average volumetric oxygen concentration.

Additionally, in accordance with specifications outlined in this condition, the permittee shall demonstrate continuous compliance with emission limitations specified in Condition 3.B.30(g) for Emission Point AA-100 by utilizing data collected by the continuous monitoring system and the average stack flow rate determined from the average of the three (3) most recent stack tests for Emission Point AA-100.

(Ref.: 40 CFR 60.284(a)(2) and (c), Subpart BB)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.48 For Emission Points AA-100 and AA-110, the permittee shall demonstrate compliance with the PM standard once every five years in accordance with the following:

(a) EPA Reference Method 5 shall be used to determine the PM concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 31.8 dscf. Water shall be used as the cleanup solvent instead of acetone in the sample recovery procedure. The particulate concentration shall be corrected to 8 percent oxygen for the recovery furnace and 10 percent oxygen for the lime kiln.

(b) The emission rate correction factor, integrated sampling and analysis procedure of Method 3B shall be used to determine the oxygen concentration. The gas sample shall be taken at the same time and at the same traverse points as the particulate sample.

(c) The average opacity shall be recorded using the COMS during each test run.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and 40 CFR 60.285(b), Subpart BB)

5.B.49 For Emission Point AA-100, 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.

The permittee shall implement corrective action when the average of ten (10) consecutive 6-minute averages result in a measurement greater than 20 percent opacity. The permittee shall be considered in violation of the PM emission standard when the opacity is greater than 35 percent for 2 percent or more of the operating time within any semiannual period. The permittee shall keep records of all corrective actions and violations.

(Ref.: 40 CFR 63.864(d)(3) and (4), (k)(1)(i), and (k)(2)(i) and 63.866(b), Subpart MM)

5.B.50 For Emission Point AA-100 and AA-110, 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.51 For Emission Points AA-100, AA-101, and AA-110, the permittee shall conduct performance tests for PM in accordance with the procedures in 40 CFR 63.865(b)(1) through (6) by October 13, 2020, to comply with the revised requirements of Subpart MM. Subsequent performance tests shall be completed within 5 years following the previous performance test. 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.52 For Emission Points AA-100 and AA-110, the permittee shall keep the following records:

(a) BLS firing rates in units of Mg/day or tons/day for the recovery furnace;

(b) CaO production rates in units of Mg/day or tons/day for the lime kiln;

(c) Records demonstrating compliance with the requirement to maintain proper operation of the ESP's AVC.

(d) 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.

(e) 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), (2), (4), and (8) and (d)(1) through (3), Subpart MM)

5.B.53 For Emission Point AA-101, the permittee shall demonstrate compliance with the emission limits by stack testing biennially for PM (filterable) using EPA Reference

Method 5 or EPA-approved alternative Method 5 GD 008, PM_{10} (filterable only) using EPA Reference Method 201 or 201A, and SO_2 using EPA Reference Method 6C.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000)

5.B.54 For Emission Point AA-101, the permittee shall install, calibrate, maintain, and operate the following continuous monitoring devices:

(a) A monitoring device for the continuous measurement of the scrubbing liquid supply pressure to the scrubber. The monitoring device is to be certified by the manufacturer to be accurate within ±15 percent of design scrubbing liquid supply pressure. The pressure sensor or tap is to be located close to the scrubber liquid discharge point.

(b) A monitoring device for the continuous measurement of fan amperage. 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 values 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. Fan amperage must be monitored at least once each successive 15-minute period and continuous compliance shall be determined on a 3-hour average.

Measurements obtained from the continuous monitoring device in paragraph (a) shall be recorded once per shift.

(Ref.: 40 CFR 60.284(b)(2) and (c)(4), Subpart BB and EPA Approved Alternative Monitoring)

5.B.55 For Emission Point AA-101, the permittee shall demonstrate compliance with the applicable PM standard as follows:

(a) Calculate the emission rate of PM for each run using the following equation:

$$E = c_s \ Q_{sd} / BLS$$

where "E" is the emission rate of PM lbs/ton of BLS; "c_s" is the concentration of PM in lbs/dscf; "Q_{sd}" is the volumetric flow rate of effluent gas in dscf/hr; and "BLS" is the black liquor solids (dry weight) feed rate in tons/hr.

(b) EPA Reference Method 5 or EPA-approved alternative Method 5 GD008 shall be used to determine the PM concentration (c_s) and the volumetric flow rate (Q_{sd}) of the effluent gas. The sampling time and sample volume shall be at least 60 minutes and 31.8 dscf. Water shall be used instead of acetone in the sample recovery.

(c) Process data shall be used to determine the BLS feed rate on a dry weight basis.

(Ref. 40 CFR 285(c), Subpart BB)

5.B.56 For Emission Point AA-101, the permittee shall demonstrate compliance with the TRS standard in accordance with the following:

(a) Calculate the emission rate of TRS for each run using the following equation:

$E = C_{TRS}\ F\ Q_{sd}/P$

Where "E" is the emission rate of TRS in lbs/ton of BLS; "C_{TRS}" is the average combined concentration of TRS in ppm; "F" is the conversion factor 0.001417 g H_2S/m^3-ppm (8.846 x 10-8 lbs H_2S/ft^3-ppm); "Q_{sd}" is the volumetric flow rate of stack gas in dscf/hr; and "P" is the BLS feed in tons/hr.

(b) EPA Reference Method 16 shall be used to determine the TRS concentration (C_{TRS}). Method 16A or 16B may be used in place of Method 16.

(c) EPA Reference Method 2 shall be used to determine the volumetric flow rate (Q_{sd}) of the effluent gas.

(d) Process data shall be used to determine the BLS feed rate (P).

(Ref.: 40 CFR 60.285(e) and (f)(2), Subpart BB)

5.B.57 For Emission Point AA-101, 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) The monitoring device used to measure scrubbing liquid flow rate must be certified by the manufacturer to be accurate within ±5 percent of the design scrubbing liquid flow rate.

(b) 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.51. 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.

(Ref.: 40 CFR 63.864(e)(10) and (j) and 63.866(c)(3), Subpart MM and EPA Approved Alternative Monitoring)

5.B.58 For Emission Point AA-101, the permittee shall take corrective action if any 3-hour average of a monitored operating parameter value is below the minimum established operating limit, with the exception of pressure drop during periods of startup and shutdown. The permittee is considered to be in violation of the PM emission limit when six or more 3-hour average parameter values within any semiannual reporting period are below the minimum established operating limits, with the exception of pressure drop during periods of startup and shutdown. The permittee must maintain records of any occurrence when a corrective action is required or when a violation is noted.

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

5.B.59 For Emission Point AA-101, 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.51.

(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) and (5) and (d), Subpart MM)

5.B.60 For Emission Point AA-110, the permittee shall record and maintain records of the fuels combusted in the lime kiln on a rolling 12-month basis.

(Ref.: PSD Permit to Construct issued September 10, 1996, and by the Title V Operating Permit issued October 10, 2000)

5.B.61 For Emission Point AA-110, the permittee shall demonstrate compliance with the emission limits by stack testing biennially for PM/PM_{10} using EPA Reference Method 5, SO_2 using EPA Reference Method 6C, NO_x using EPA Reference Method 7, CO using EPA Reference Method 10, and VOC using EPA Reference Method 25.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified by the Title V Operating Permit issued October 10, 2000.)

5.B.62 For Emission Point AA-110, the permittee shall demonstrate compliance with the lb/hr emission limit on TRS using the continuous TRS monitor required by 40 CFR 60, Subpart BB to determine the monthly average TRS emission rate in lbs/hr. The monthly average emission rate of TRS (in lbs/hr) shall be determined for each calendar month using the monthly average TRS concentration from the TRS monitor and the average stack flow rate determined from the average of the three (3) most recent stack tests for Emission Point AA-110.

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

5.B.63 For Emission Point AA-110, the permittee shall install, calibrate, maintain, and operate a COMS in accordance with Performance Specification 1 in Appendix B to 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.

The permittee shall implement corrective action when the average of ten (10) consecutive 6-minute averages result in a measurement greater than 20 percent opacity. The permittee shall be considered in violation of the PM emission standard when the opacity is greater than 20 percent for 3 percent or more of the operating time within any semiannual period. The permittee shall keep records of all corrective actions and violations.

(Ref.: 40 CFR 63.864(d)(3) and (4), (k)(1)(i), and(k)(2)(iii), and 63.866(b), Subpart MM)

5.B.64 For Emission Point AA-113, the permittee shall record each instance for which the incinerator is being used as the primary control device for the LVHC gas streams. The

information shall include the date, duration, and reason the LVHC gases are being incinerated in the incinerator for control.

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

5.B.65 For Emission Point AA-113, the permittee shall demonstrate compliance with the emission limits by stack testing biennially for PM (filterable) using EPA Reference Method 5, PM_{10} (filterable) using EPA Reference Method 201 or 201A, and SO_2 using EPA Reference Method 6C.

(Ref.: PSD Permit to Construct issued September 10, 1996, and modified in TVOP issued October 10, 2000)

5.B.66 For Emission Point AA-113, the permittee shall install, calibrate, maintain, and operate a monitoring device to measure and record the combustion temperature at the point of incineration of effluent gases from the stripper system. The monitoring device shall be certified by the manufacturer to be accurate within ±1 percent of the temperature being measured.

(Ref.: 40 CFR 60.284(b)(1), Subpart BB)

5.B.67 For Emission Points AA-402, AA-403, AA-404, and AA-405, the permittee shall install a non-resettable hour meter on each engine (if not already installed). The permittee shall keep records of the hours of operation of each engine that are recorded through the hour meters. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation.

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

5.B.68 For Emission Points AA-402, AA-403, AA-404, and AA-405, 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), and (5) and 63.6660, Subpart ZZZZ)

5.B.69 For Emission Points AA-401 and AA-406, the permittee shall install a non-resettable hour meter on the engine, if one is not already installed. The permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the hour meter. The permittee shall record the time of operation and the reason the engine was in operation during that time.

(Ref.: 40 CFR 60.4209(a) and 60.4214(b), Subpart IIII)

5.B.70 For Emission Points AA-060, AA-080, AA-081, AA-100, AA-101, AA-110, and AA-113, the permittee shall monitor the operating parameters on each control device in accordance with the CAM Plan found in Appendix C of the permit.

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

5.B.71 For Emission Points AA-060, AA-080, AA-081, AA-100, AA-101, AA-110, and AA-113, 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.72 For Emission Points AA-060, AA-080, AA-081, AA-100, AA-101, AA-110, and AA-113, 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.73 For Emission Points AA-060, AA-080, AA-081, AA-100, AA-101, AA-110, and AA-113, based on the results of a determination made under Condition 5.B.71, the DEQ may require the permittee to develop and implement a Quality Improvement Plan (QIP) containing the elements specified in 40 CFR 64.8(b). The QIP shall be developed and implemented within 180 days of written notification from DEQ that a QIP is required. 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.74 For Emission Points AA-060, AA-080, AA-081, AA-100, AA-101, AA-110, and AA-113, the permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to Condition 5.B.73 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).	5.C.1	All Pollutants	Performance Testing Submittal Requirements
AA-010 AA-011	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.2	Opacity	Semi-Annual report
AA-031 AA-032 AA-033 AA-034 AA-050	40 CFR 63.455(g) and 63.456, Subpart S	5.C.3	HAPs	Malfunction Reporting
	40 CFR 63.455(a) and Table 1, Subpart S and 63.10(e)(3), Subpart A	5.C.4		Excess Emissions Reporting
AA-032 AA-033 AA-034	40 CFR 63.455(h), Subpart S and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.5	HAPs	Submittal of Required Test Reports
AA-033	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.6	HAPs	Semi-Annual Report
AA-071	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.7	Operating Parameter	
AA-060	40 CFR 64.9(a), CAM	5.C.28	Pressure Drop	Semiannual reporting requirements
AA-080	40 CFR 60.49b(q), Subpart Db	5.C.8	NO_X	Annual Reporting
	40 CFR 63.7550(a), (b)(5), and (c)(5)(i) through (iv), (xiv), and (xvii) and Table 9, Subpart DDDDD	5.C.9	HAPs	Compliance Report (5-year)
	40 CFR 64.9(a), CAM	5.C.28	FGR Damper Position; Exhaust O_2	Semi-Annual reporting requirements
AA-081	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.10	Control of NCGs	Semi-Annual report
		5.C.11	Fuel Usage	
	40 CFR 60.49b(h) and (w), Subpart Db	5.C.12	NO_X Opacity	Excess emissions report
	40 CFR 60.49b(i), (g), and (w), Subpart Db	5.C.13	NO_X	Semi-Annual report
	40 CFR 60.49b(j), (k), and (w), Subpart Db	5.C.14	SO_2	

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Reporting Requirement
AA-081	40 CFR 61.55(a), 61.53(d)(5), and 61.54(f), Subpart E	5.C.15	Hg	Report Sampling / Monitoring Results
	40 CFR 63.7550(a), (b)(5), and (c)(5)(i) through (iii), (v) through (xiv), and (xvi) through (xviii) and (e), and Table 9, Subpart DDDDD	5.C.16	HAPs	Compliance Report (annual)
	40 CFR 63.7550(h), Subpart DDDDD	5.C.17	HAPs	Test Reports and CEMS Evaluations
	40 CFR 64.9(a), CAM	5.C.28	Opacity	Semi-Annual Reporting Requirements
AA-100	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.18	Fuel	Semi-Annual Report
		5.C.19	BLS Feed Rate	
	40 CFR 60.49b(h) and (w), Subpart Db	5.C.12	Opacity	Excess Emissions Report
	40 CFR 60.49b(r) and (w), Subpart Db	5.C.20	SO_2	Semi-Annual Report
	40 CFR 60.284(d) and (e), Subpart BB	5.C.21	TRS	Semi-Annual Excess Emissions Report
	40 CFR 64.9(a), CAM	5.C.28	Opacity	Semi-Annual Reporting Requirements
AA-100 AA-101 AA-110	40 CFR 63.867(c)(1), (3), (4), and (5), Subpart MM	5.C.22	PM	Semi-Annual Excess Emissions Report
	40 CFR 63.867(d), Subpart MM and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.23		Electronic Reporting
AA-101	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.19	BLS Feed Rate	Semi-Annual Report
	40 CFR 64.9(a), CAM	5.C.28	Supply Pressure and Fan Amperage	Semi-Annual Reporting Requirements
AA-110	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.24	Fuel Usage	Semi-Annual report
	40 CFR 60.284(d) and (e), Subpart BB	5.C.21	TRS	Semi-Annual Excess Emissions Report
	40 CFR 64.9(a), CAM	5.C.28	Opacity	Semi-Annual Reporting Requirements
AA-113	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).	5.C.25	LVHC Gases	Semi-Annual Report

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Reporting Requirement
AA-113	40 CFR 60.284(d) and (e), Subpart BB	5.C.21	TRS	Semi-Annual Excess Emissions Report
	40 CFR 64.9(a), CAM	5.C.28	SO_2	Semi-Annual Reporting Requirements
AA-400 AA-401 AA-406	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1)).	5.C.26	Hours of Operation	Semi-Annual Reporting
AA-402 AA-403 AA-404 AA-405	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and 40 CFR 63.6640(b), 63.6650(f), and Footnote 1 to Table 2c, Subpart ZZZZ	5.C.27	HAPs	Report Hours of Operation and All Deviations
AA-060 AA-080 AA-081 AA-100 AA-101 AA-110 AA-113	40 CFR 64.7(e), CAM	5.C.29		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) should 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) to ensure that all test methods and procedures are acceptable to the DEQ. If the test protocol contains variances from the EPA Reference Methods, 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.

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

5.C.2 For Emission Points AA-010 and AA-011, the permittee shall submit a semiannual report in accordance with Condition 5.A.4 containing a summary of the results of any required monthly inspections and/or visible emissions evaluations.

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

5.C.3 For Emission Points AA-031, AA-032, AA-033, AA-034, and AA-050, 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-031, AA-032, AA-033, AA-034, and AA-050, 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 and 63.10(e)(3), Subpart A)

5.C.5 For Emission Points AA-032, AA-033, and AA-034, 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, and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).)

5.C.6 For Emission Point AA-033, the permittee shall include in the semiannual report required in Condition 5.A.4, information concerning the date, time, and duration that the pH of the scrubbing liquid falls below 11 and the date, time, and duration that vacuum is lost on the CTO reactor tank farthest from the CTO reactor system scrubber.

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

5.C.7 For Emission Point AA-071, the permittee shall report the date, time, and duration for any period when the bleach plant vent and chilled water scrubbing for the chlorine dioxide generator was not operating. The information shall be reported in accordance with Condition 5.A.4.

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

5.C.8 For Emission Point AA-080, the permittee shall submit an annual report in accordance with the January semiannual report required in Condition 5.A.4 which contains:

(a) The annual capacity factor over the previous 12 months

(b) The results of any NO_x emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last NO_x emission test.

(Ref.: 40 CFR 60.49b(q), Subpart Db)

5.C.9 For Emission Point AA-080, the permittee shall submit a 5-year 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 total operating time during the reporting period;

(e) Date of the most recent tune-up, including the date of the most recent burner inspection if it was not done during the tune-up and was delayed until the next scheduled or unscheduled unit shutdown; and

(f) 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.

(Ref.: 40 CFR 63.7550(a), (b)(5), and (c)(5)(i) through (iv), (xiv), and (xvii), and Table 9, Subpart DDDDD)

5.C.10 For Emission Point AA-081, the permittee shall submit a summary report containing the total amount of time the boiler was used as the control device for the HVLC NCG gas stream. The summary shall be included in the semiannual report submitted in accordance with Condition 5.A.4.

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

5.C.11 For Emission Point AA-081, the permittee shall submit a summary report in accordance with Condition 5.A.4 containing the amount of each fuel combusted during the reporting period and the annual capacity factor of each fuel determined on the rolling 12-month average that was calculated at the end of each month of the period.

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

5.C.12 For Emission Points AA-081 and AA-100, the permittee shall submit excess emission reports for any excess emissions that occurred during the reporting period. For opacity, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standard. This information shall be included in the report required in accordance with Condition 5.A.4.

(40 CFR 60.49b(h) and (w), Subpart Db)

5.C.13 For Emission Point AA-081, the permittee shall submit reports in accordance with Condition 5.A.4 that contain the following information for each steam generating unit operating day:

(a) Calendar date;

(b) The average hourly NO_x emission rates (expressed as NO_2) (lbs/MMBtu heat input) measured or predicted;

(c) The 30-day average NO_x emission rates (lbs/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly NO_x emission rates for the preceding 30 steam generating unit operating days;

(d) Identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the emission standard, with the

reason(s) for such excess emissions as well as a description of corrective actions taken;

(e) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reason(s) for not obtaining sufficient data and a description of corrective actions taken;

(f) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

(g) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

(h) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(i) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

(j) Results of daily CEMS drift tests and quarterly assessments as required under Appendix F, Procedure 1 of 40 CFR 60.

(Ref.: 40 CFR 60.49b(i) and (g), Subpart Db)

5.C.14 For Emission Point AA-081, the permittee shall submit reports in accordance with Condition 5.A.4 that contain the following information:

(a) Calendar dates covered in the reporting period;

(b) Each 30-day average SO_2 emission rate (lbs/MMBtu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(c) Identification of the steam generating unit operating days that coal or oil was combusted and for which SO_2 or diluent data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken;

(d) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justifications for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit;

(e) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

(f) Identification of times when hourly averages have been obtained based on manual sampling methods;

(g) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(h) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3;

(i) Results of daily CEMS drift tests and quarterly assessments as required under Appendix F, Procedure 1 of 40 CFR 60; and

(j) The annual capacity factor of each fuel fired.

(Ref.: 40 CFR 60.49b(j), (k), and (w), Subpart Db)

5.C.15 For Emission Point AA-081, the permittee shall report the mercury emissions determined during a stack test or through sludge sampling within 45 days after the sample has been taken.

(Ref.: 40 CFR 61.55(a), 61.53(d)(5), and 61.54(f), Subpart E)

5.C.16 For Emission Point AA-081, the permittee shall submit an annual 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) The date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.

(g) A statement indicating no new types of fuel were burned in the boiler. If a new type of fuel was burned, the permittee shall submit the required HCl and mercury information in accordance with 40 CFR 63.7550(c)(5)(viii).

(h) If the permittee intends to burn a new type of fuel that is not in compliance with the maximum chlorine or mercury input operating limits, the permittee shall include a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(i) A summary of any monthly fuel analyses conducted to demonstrate compliance;

(j) 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.

(k) 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 were out of control during the reporting period.

(l) 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.

(m) Date of the most recent tune-up, including the date of the most recent burner inspection if it was not done during the tune-up and was delayed until the next scheduled or unscheduled unit shutdown;

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

(o) 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

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

(q) 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), and (c)(5)(i) through (iii), (v), and (xiv), and (xvi) through (xviii) and (e), and Table 9, Subpart DDDDD)

5.C.17 For Emission Point AA-081, 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).

(Ref.: 40 CFR 63.7550(h), Subpart DDDDD)

5.C.18 For Emission Point AA-100, the permittee shall submit a semiannual report in accordance with Condition 5.A.4 that contains the amount of each fuel used and the annual capacity factors that were calculated at the end of each month for each fuel fired during the reporting period.

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

5.C.19 For Emission Points AA-100 and AA-101, the permittee shall submit a summary of the rolling 365-day average BLS feed rate determined daily during the reporting period in accordance with the semiannual report required in Condition 5.A.4.

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

5.C.20 For Emission Points AA-100, the permittee shall certify in each semiannual report required in accordance with Condition 5.A.4 that only very low sulfur oil and natural gas were combusted during the reporting period.

(Ref.: 40 CFR 60.49b(r) and (w), Subpart Db)

5.C.21 For Emission Point AA-100, AA-110, and AA-113, the permittee shall report excess emissions in accordance with Condition 5.A.4. Excess emissions are considered as follows:

Recovery Furnace – Emission Point AA-100

(a) All 12-hour averages of TRS concentrations above 5 ppm by volume; and

(b) All 6-minute average opacities that exceed 35 percent.

Lime Kiln – Emission Point AA-110

(c) All 12-hour average TRS concentrations above 8 ppm by volume;

NCG Incinerator – Emission Point AA-113

(d) All 12-hour average TRS concentrations above 5 ppm by volume; or

(e) All periods in excess of 5 minutes and their duration during which the combustion temperature at the point of incineration is less than 650° C (1,200° F).

Periods of excess emissions reported above shall not be indicative of a violation provided that the percent of the total number of possible contiguous periods of excess emissions in a quarter (excluding periods of startup, shutdown, or malfunction and periods when the facility is not operating) during which excess emissions occur does not exceed one percent for TRS emissions from the recovery furnace and six percent for average opacities from the recovery furnace and the DEQ determines the permittee maintained and operated the affected facility, including air pollution control equipment, consistent with good air pollution control practice for minimizing emissions during the periods of excess emissions.

(Ref.: 40 CFR 60.284(d) and (e), Subpart BB)

5.C.22 For Emission Points AA-100, AA-101, and AA-110, 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).

(iii) For RTO operating temperature:

(A) The operating limit established during the performance test.

(B) The number of 1-hour and 3-hour temperature averages below the minimum operating limit established during the performance test.

(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), (3), (4), and (5), Subpart MM)

5.C.23 For Emission Points AA-100, AA-101, and AA-110, 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, after October 11, 2019, 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.24 For Emission Point AA-110, the permittee shall submit a semiannual report in accordance with Condition 5.A.4 containing a summary of the throughput, as a percentage of BTU value, of combusted fuels (natural gas or fuel oil), on both a daily and an annual (calendar year) basis.

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

5.C.25 For Emission Point AA-113, in each semiannual report required in Condition 5.A.4, the permittee shall submit a summary of the total amount of time LVHC gases are routed to AA-113 for destruction.

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

5.C.26 For Emission Points AA-400, AA-401, and AA-406, the permittee shall submit semiannual reports in accordance with Condition 5.A.4 summarizing the hours of operation of each engine in the calendar year. For Emission Points AA-401 and AA-406, this report shall also include what hours were for emergency use and what constituted the emergency and what hours were for non-emergency use.

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

5.C.27 For Emission Points AA-402, AA-403, AA-404, and AA-405, the permittee shall submit semiannual reports in accordance with Condition 5.A.4 summarizing the hours of operation of each engine in the calendar year. This report shall also include what hours were for emergency use and what constituted the emergency and what hours were for non-emergency use.

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

5.C.28 For Emission Points AA-060, AA-080, AA-081, AA-100, AA-101, AA-110, and AA-113, 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.73. 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.29 For Emission Points AA-060, AA-080, AA-081, AA-100, AA-101, AA-110, and AA-113, 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;

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

(c) Refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, as well as persons selling, offering for sale, and/or purchasing class I, class II, or non-exempt substitute refrigerants.

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

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

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

(b) Any person disposing of halons;

(c) Manufacturers of halon blends; or

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

APPENDIX A

List of Abbreviations Used In this Permit

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

APPENDIX B

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 Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation and Processing Plants

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 61, Subpart E, National Emission Standard for Mercury

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

40 CFR 64, Compliance Assurance Monitoring

APPENDIX C

CAM PLAN FOR EMISSION POINTS AA-060, AA-080, AA-081, AA-100, AA-101, AA-110, and AA-113

Table 1 - CAM PLAN FOR PULP MACHINE WINDER WITH SCRUBBER (AA-060) TO CONTROL PARTICULATE MATTER AND OPACITY

Indicator	Pressure drop across Venturi scrubber
Measurement Approach	Continuous monitoring of pressure drop
Monitoring Methods and Location	Continuous monitoring across throat of scrubber
Indicator Range	Minimum pressure drop shall be 9 inches of water as determined in January 2003 test. Excursion is defined as when the daily average for ΔP drops below 9 inches of water.
Data Collection Frequency	Continuous (ΔP measured several times a minute to arrive at an hourly average) when Pulp Machine Winder is in operation
Averaging Period	Daily
Recordkeeping	Continuous recording (Daily Average)
QA/QC	Pressure monitor calibrated monthly with a U tube manometer within 0.5-inch water column

Table 2 - CAM PLAN FOR 400 MMBTU/HR NATURAL GAS PACKAGE BOILER WITH FLUE GAS RECIRCULATION (AA-080) TO CONTROL NO_X EMISSIONS

Indicator	FGR Damper Position	O_2 concentration of the flue gas
Measurement Approach	Notch indicator that measures position of the FGR damper as to the closed position	In line continuous O_2 analyzer
Monitoring Methods and Location	Visual observation of notch indicator for the damper	Continuous monitoring of O_2 Concentration of the flue gas
Indicator Range	Damper cannot be closed over 35% Excursion - anytime damper is closed over 35%	Maximum O_2 concentration of 4% Excursion - continuous 3-hour rolling average is greater than 4% for O_2 concentration
Data Collection Frequency	Daily visual inspection	Continuous, hourly average
Averaging Period	N/A	3-hour rolling average
Recordkeeping	Daily	Hourly average archived in Data Management System, 3-hour rolling average
QA/QC	N/A	Calibration of O_2 analyzer monthly within 2% of calibration gases

Table 3 - CAM PLAN FOR 1,400 MMBTU/HR POWER BOILER WITH ELECTROSTATIC PRECIPITATOR (AA-081) TO CONTROL PARTICULATE MATTER

Indicator	Opacity of emissions discharged to the atmosphere
Measurement approach	In line continuous opacity monitoring system (COMS)
Monitoring Methods and Location	Continuous monitoring of opacity of gases discharged to the atmosphere
Indicator Range	Opacity cannot exceed 10 percent Excursion – Opacity exceeding 10 percent
Data Collection Frequency	Continuous
Averaging Period	Daily block average
Recordkeeping	Daily block averages archived in Data Management System
QA/QC	The COMS must be installed, operated, and maintained according to Performance Specification 1 at Appendix B to 40 CFR Part 60, including conducting a performance evaluation according to 40 CFR 63.8(e) and Performance Specification 1.

Table 4 - CAM PLAN FOR 7.0 MMLB BLACK LIQUOR SOLIDS/DAY RECOVERY FURNACE WITH ELECTROSTATIC PRECIPITATOR (AA-100) TO CONTROL PARTICULATE MATTER

Indicator	Opacity of emissions discharged to the atmosphere
Measurement approach	In line continuous opacity monitoring system (COMS)
Monitoring Methods and Location	Continuous monitoring of opacity of gases discharged to the atmosphere
Indicator Range	Corrective action is required if opacity exceeds 20 percent based on an average of ten consecutive 6-minute averages Excursion – Opacity exceeding 20 percent based on an average of ten consecutive 6-minute averages
Data Collection Frequency	Continuous
Averaging Period	6-minute average
Recordkeeping	6-minute averages archived in Data Management System
QA/QC	The COMS must be installed, calibrated, maintained, and operated in accordance with Performance Specification 1 (PS-1) in Appendix B to 40 CFR Part 60 and the provisions in 40 CFR §§63.6(h) and 63.8.

Table 5 – CAM PLAN FOR SMELT DISSOLVING TANK WITH DUCON WET SCRUBBER (AA-101) TO CONTROL TOTAL PARTICULATE MATTER (PM), SULFUR DIOXIDE (SO_2), AND TOTAL REDUCED SULFUR (TRS)

Indicator	Flow rate of Scrubbing Solution	Scrubber fan amperage
Measurement Approach	Magnetic flow meter for continuous monitoring	CPMS for fan amperage
Monitoring Methods and Location	Continuous in line monitoring	Continuous monitoring of fan amperage
Indicator Range	Minimum flow rate of 754 gpm on a 3-hour average Excursion – six or more 3-hour average scrubbing liquid flow rate values below the minimum operating limit within a six-month reporting period	Minimum fan amperage of 31 amps on a 3-hour average Excursion – six or more 3-hour average fan amperage values below the minimum operating limit within a six-month period
Data Collection Frequency	At least once every 15-minute period using the procedures in 40 CFR §63.8(c)	At least once every 15-minute period using the procedures in 40 CFR §63.8(c)
Averaging Period	3-hour	3-hour
Recordkeeping	3-hour averages archived in Data Management System	3-hour averages archived in Data Management System
QA/QC	CMS data quality assurance procedures consistent with the requirements at 40 CFR §63.8(d)(1) and (2)	CMS data quality assurance procedures consistent with the requirements at 40 CFR §63.8(d)(1) and (2)

Table 6 – CAM PLAN FOR 103 MMBTU/HR NATURAL GAS-FIRED LIME KILN WITH ELECTROSTATIC PRECIPITATOR (AA-110) TO CONTROL PARTICULATE MATTER

Indicator	Opacity of emissions discharged to the atmosphere
Measurement approach	In line continuous opacity monitoring system (COMS)
Monitoring Methods and Location	Continuous monitoring of opacity of gases discharged to the atmosphere
Indicator Range	Corrective action is required if opacity exceeds 20 percent based on an average of ten consecutive 6-minute averages Excursion – Opacity exceeding 20 percent based on an average of ten consecutive 6-minute averages
Data Collection Frequency	Continuous
Averaging Period	6-minute averages
Recordkeeping	6-minute averages archived in Data Management System
QA/QC	The COMS must be installed, calibrated, maintained, and operated in accordance with Performance Specification 1 (PS-1) in Appendix B to 40 CFR Part 60 and the provisions in 40 CFR §§63.6(h) and 63.8.

Table 7 – CAM PLAN FOR NCG INCINERATOR (AA-113) CONTROLLED BY A PACKED BED SCRUBBER FOR SO_2 EMISSIONS AND USED TO BURN LVHC GASES FROM THE STEAM STRIPPER (AA-032) AND CHIP BIN (AA-032)

Indicator	Flow rate of Scrubbing Solution	pH of Scrubbing Solution
Measurement approach	Magnetic flow meter for continuous monitoring	pH sensor to measure pH continuously
Monitoring Methods and Location	Continuous in line monitoring	Continuous in line monitoring
Indicator Range	Minimum flow rate of 250 gpm Excursion – Average hourly flow rate of less than 250 gpm	Minimum pH of 8.8 Excursion – Average hourly pH value of less than 8.8
Data Collection Frequency	Continuous	Continuous
Averaging Period	Hourly average	Hourly Average
Recordkeeping	Hourly average archived in Data Management System	Hourly average archived in Data Management System
QA/QC	Calibrated annually based on manufacturer recommendation.	pH sensor is checked for accuracy monthly for within ± 0.2 pH units and recalibrated. Calibrated annually at a minimum according to manufacturer.

APPENDIX D

EPA APPROVED ALTERNATIVE MONITORING
40 CFR 60, SUBPART BB AND 40 CFR 63, SUBPART MM

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

OCT 14 2019

David Phillips
Mill Manager
International Paper – Columbus Mill
4335 Carson Road
Columbus, Mississippi 39701

Dear Mr. Phillips:

This letter is in response to your March 18, 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 (MACT Subpart MM) at International Paper's Columbus (IP) in Columbus, 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. The letter also requested approval for the fan amps alternative monitoring parameter in lieu of the differential pressure monitoring requirements of the Kraft Pulp Mills: New Source Performance Standards (NSPS), 40 CFR part 60, Subpart BB.

MACT Subpart MM Alternative Monitoring Request

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 Columbus 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 Columbus, Mississippi mill 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.

NSPS Subpart BB Alternative Monitoring Request

NSPS Subpart BB requires the owner or operator of a smelt dissolving tank scrubber measure the pressure differential of the gas stream through the scrubber. Similar to the former NESHAP Subpart MM rule (prior to its most recent revision incorporating the 2017 amendments), the NSPS Subpart BB monitoring parameters required for wet scrubbers are appropriate for high static venturi scrubbers that rely on high pressure differential through the scrubber and high rates of scrubber liquid injection for increased particulate removal efficiencies. Based on the operation of the Ducon scrubber utilized at the Columbus Mill, described above, fan amps are an appropriate alternative to pressure differential. Accordingly, the alternative monitoring method described above is also approved in lieu of monitoring differential pressure monitoring required under NSPS Subpart BB, 40 CFR 60.282(b)(2)(i). Other requirements of Subpart BB continue to apply.

The EPA may alter these approvals 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,

Kenneth L. Mitchell
Acting Director
Air and Radiation Division

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