STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

National Aeronautics and Space Administration, John C. Stennis Space Center
John C Stennis Center
Building 1100, Balch Boulevard
Stennis Space Center, Hancock 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 10, 2023

Effective Date: As Specified Herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

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AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: September 30, 2028 **Permit No.: 1000-00005**

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SECTION 1. GENERAL CONDITIONS

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

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

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

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

1.3 The 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 following provisions:.

(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 EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions 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 a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings shall not be initiated before a notice of such intent is provided to the Title V source by the Department of Environmental Quality (DEQ) 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 DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information claimed to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

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

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

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

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

1.8 The permittee shall pay to the DEQ an annual fee based on a fee schedule established by the Mississippi Commission on Environmental Quality (i.e., the "Commission"). The fee schedule shall be set each year by order of the Commission in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.

(a) A portion of the fee shall be based on the permittee's annual quantity of emissions. The permittee shall elect for "actual emissions" 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.

(i) "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.

(ii) "Allowable emissions" are those emissions limited by this permit as well as those emissions not expressly limited by this permit but otherwise allowed by this permit, as represented in the Title V application.

(iii) Not withstanding paragraphs (i) and (ii), a minimum annual fee shall be assessed in accordance with the fee schedule established by the Commission when calculating this portion of the fee.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.B(1).)

(b) A portion of the fee shall be based on the complexity of this permit, as determined by the number of air regulations applicable to the permittee on the date of the fee calculation in accordance with the fee schedule established by the Commission. Only air regulations required to be addressed by this permit may be included in the annual fee schedule.

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

(c) By July 1 of each year, the permittee shall submit a completed annual fee reporting form to the DEQ accompanied by all necessary calculations and supporting information to verify actual emissions. If the annual fee reporting form is not filled out completely and accurately or certified in accordance with Regulation 11 Miss. Admin. Code Pt. 2, R. 6.2.E., "allowable emissions" or other information necessary to determine the appropriate annual fee shall be used in the fee calculation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.B(3)(c).)

(d) If the Commission determines that there is not sufficient information available to the permittee to accurately complete and submit the annual fee reporting form by July 1, but such information becomes available and is submitted to the DEQ after July 1, the fee calculation and assessment may be altered according to the annual fee schedule. No fee actually paid to the DEQ shall be refunded due to a change in the fee calculation.

If a fee is recalculated such that the amount assessed for an annual period is reduced and the permittee has already paid all or a portion of the fee, the revised fee assessment may not be reduced to an amount less than what the permittee has already paid regardless of the results of the recalculation.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.B(3)(d).)

(e) The fee shall be due September 1 of each year. However, the permittee may elect a quarterly payment method of four (4) equal payments with the payments due September 1, December 1, March 1 and June 1. The permittee shall notify the DEQ that the quarterly payment method will be used by September 1.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.E(1).)

(f) If at any time within the year the Commission determines that the information submitted by the permittee is insufficient or incorrect, the DEQ will notify the permittee of the deficiencies and the adjusted fee schedule. Past due fees as a result of the adjusted fee assessment will be due at the time of the next scheduled quarterly payment.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.E(1)(b).)

(g) If an annual fee is not paid within thirty (30) days after the due date, a penalty of ten (10) percent of the amount due shall at once accrue and be added thereto. If the fee is not paid in full (including any interest and penalty within sixty (60) days of the due date), the Permit Board may revoke the permit upon proper notice and hearing as required by law.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.E(1)(a).)

(h) If the permittee disagrees with the calculation or applicability of an annual 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.D.)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1.14 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance upon satisfying one of the following conditions:

(a) Such applicable requirements are included and are specifically identified in the permit; or

(b) The Permit Board, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the permittee and the permit includes such determination (or a concise summary thereof).

(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 to register such a plan pursuant to Section 112(r) of the Federal Act.

(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 that is submitted at least six (6) months prior to the date of permit expiration.

If the permittee submits a timely and complete application for permit issuance (including for renewal), the failure to have a Title V permit is not a violation of the applicable regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application.

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

1.18 The permittee is authorized to make changes within their facility without requiring a permit revision (Ref.: Section 502(b)(10) of the Federal Act) if the following criteria are met:

(a) The changes are not modifications under any provision of Title I of the Federal 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 [i.e., at least seven (7) days or such other time frame as provided in other regulations for emergencies] and the notification includes the following information:

(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 either the permittee's prepared "Emission Control Action Program(s)" or, in the absence of a prepared Emission Control Action Program, the appropriate requirements and "Emission Reduction Objectives" specified in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 3. – "Regulations for the Prevention of Air Pollution Emergency Episodes" – for the level of emergency declared and the permittee's source of air contamination.

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

1.20 Except as otherwise provided herein, a modification of the permittee's facility may require a Permit to Construct in accordance with the provisions specified in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. – "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment" – and may require modification of this permit in accordance with Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6. – "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act."

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

(a) Routine maintenance, repair, and replacement;

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

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

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

(1) The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. and/or Ch. 5.; or

(2) The source is approved to use under any permit issued under Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. and/or Ch. 5.;;

(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 Regulation 11 Miss. Admin. Code Pt. 2, Ch. 2. or Ch. 5.; or

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

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

1.21 An administrative permit amendment may be made by the Permit Board authorizing changes in ownership or operational control consistent with the following procedure:

(a) The Permit Board shall take action within sixty (60) days after receipt of a completed request for a permit transfer, unless a public hearing is scheduled. The Permit Board may incorporate such changes without providing notice to the public or affected State(s) provided that it designates any such permit revision as having been made pursuant to this paragraph.

(b) A permit transfer shall be approved upon satisfaction of the following:

(1) The applicant for transfer approval can demonstrate to the Permit Board it has the financial resources, operational expertise, and environmental compliance history over the last five (5) years to insure compliance with the terms and conditions of the permit to be transferred, except where this conflicts with State Law, and

(2) The Permit Board determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the DEQ.

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

1.22 This permit is a Federally approved operating permit under Title V of the Federal Act. All terms and conditions in this permit, including any provisions designed to limit the permittee'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 an Emergency Air Pollution Episode Alert imposed by the Executive Director of DEQ; and must meet the following buffer zones:

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

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

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

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

1.24 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, startups, and shutdowns.

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

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

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

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

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

(iv) That within five (5) working days of the time the upset began, the source submitted a written report to the Department describing the upset, the

steps taken to mitigate excess emissions or any other non-compliance, and the corrective actions taken and;

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

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

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

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

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

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

(2) Where the source is unable to comply with existing emission limitations established under the State Implementation Plan (SIP) and defined in Regulation 11 Mississippi Administrative Code, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for start-ups and shutdowns. Source specific emission limitations or work practice standards established for start-ups and shutdowns are subject to the requirements prescribed in 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 start-up or shutdown, see the "Upset" requirements above.

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

1.25 The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements specified in 40 CFR Part 61, Subpart M (National Emission Standard for Asbestos), as adopted by reference in Regulation 11 Miss Admin. Code Pt. 2, R. 1.8. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

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

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
AA-000	Facility-Wide (National Aeronautics and Space Administration, John C Stennis Space Center)
	Diesel-Fired Emergency Back-Up Power Generator Engines
AA-002	300 kW (449 HP) Diesel-Fired Emergency Generator (Existing Institutional Emergency Compression Ignition (CI) RICE; total heat input: 2.84 MMBTU / hour; manufactured in 1985) (Facility Ref. No. 1201-3A)
AA-012	100 kW (235 HP) Diesel-Fired Emergency Generator (Existing Institutional Emergency CI RICE; total heat input: 0.94 MMBTU / hour; manufactured in 1984) (Facility Ref. No. 2105-10)
AA-013	300 kW (500 HP) Diesel-Fired Emergency Generator (Existing Institutional Emergency CI RICE; total heat input: 2.84 MMBTU / hour; manufactured in 2005) (Facility Ref. No. 2204-1)
AA-022	400 kW (755 HP) Diesel-Fired Emergency Generator (New CI RICE; total heat input: 3.78 MMBTU / hour; manufactured in 2009) (Facility Ref. No. 9114-1)
AA-024	200 KW (347 HP) Diesel-Fired Emergency Generator (Existing Institutional Emergency CI RICE; total heat input: 1.88 MMBTU / hour; manufactured in 2005) (Facility Ref. No. 3418-1)
AA-118	1,780 kW (2,923 HP) Diesel-Fired Emergency Generator (New Emergency CI RICE; total heat input: 19.40 MMBTU / hour; manufactured in 2011) (Facility Ref. No. B-3305-1)
AA-120	10 kW (15 HP) Diesel-Fired Emergency Generator (Existing Institutional Emergency CI RICE; total heat input: 0.09 MMBTU / hour; manufactured in 1997) (Facility Ref. No. 1200-1)
	Dual Fuel-Fired (Diesel and/or Natural Gas) Emergency Back-Up Power Generator Engines
AA-015	600 kW (923 HP) Dual Fuel-Fired Emergency Generator (New CI RICE; total heat input: 5.89 MMBTU / hour; manufactured in 2007) (Facility Ref. No. 8000-1N)
AA-016	600 kW (923 HP) Dual Fuel-Fired Emergency Generator (New CI RICE; total heat input: 5.89 MMBTU / hour; manufactured in 2007) (Facility Ref. No. 8000-2S)
AA-017	800 kW (1,175 HP) Dual Fuel-Fired Emergency Generator (New CI RICE; total heat input: 7.78 MMBTU / hour; manufactured in 2007) (Facility Ref. No. 1100-1)
AA-018	800 kW (1,175 HP) Dual Fuel-Fired Emergency Generator (New CI RICE; total heat input: 7.78 MMBTU / hour; manufactured in 2008) (Facility Ref. No. 1100-2)
AA-019	800 kW (1,175 HP)Dual Fuel-Fired Emergency Generator (New CI RICE; total heat input: 7.78 MMBTU / hour; manufactured in 2007) (Facility Ref. No. 1100-3)
AA-020	500 kW (755 HP) Dual Fuel-Fired Emergency Generator (New CI RICE; total heat input: 4.79 MMBTU / hour; manufactured in 2009) (Facility Ref. No. 1201-1)
AA-023	300 kW (470 HP) Dual Fuel-Fired Emergency Generator (New CI RICE; total heat input: 3.19 MMBTU / hour; manufactured in 2009) (Facility Ref. No. 3204-1)

Emission Point	Description
	Natural Gas-Fired Emergency Back-Up Power Generator Engines
AA-014	100 kW (168 HP) Natural Gas-Fired Emergency Generator (New 4-Stroke, Lean Burn (4SLB) Spark Ignition (SI) RICE; total heat input: 1.3 MMBTU / hour; manufactured in 2007) (Facility Ref. No. 8100-1 NG)
AA-115	400 kW (612 HP) Natural Gas-Fired Emergency Generator (New 4-Stroke, Rich Burn (4SRB) SI RICE; total heat input: 4.30 MMBTU / hour; manufactured in 2012) (Facility Ref. No 9155)
AA-119	63.2 kW (84.7 HP) Natural Gas-Fired Emergency Generator (New 4SLB SI RICE; total heat input: 0.82 MMBTU / hour; manufactured in 2018) (Facility Ref. No. 1204-1)
	Diesel-Fired, Non-Emergency Power Generators and Water Pump Engines
AA-051	1,500 kW (2,120 HP) Diesel-Fired Generator (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 14.94 MMBTU / hour; manufactured in 1960) (Facility Ref. No. 4400-2, C-1)
AA-052	1,500 kW (2,120 HP) Diesel-Fired Generator (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 14.94 MMBTU / hour; manufactured in 1960) (Facility Ref. No. 4400-3, C-2)
AA-053	1,500 kW (2,120 HP) Diesel-Fired Generator (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; manufactured in 1960) (Facility Ref. No. 4400-4, C-3)
AA-054	1,500 kW (2,120 HP) Diesel-Fired Generator (CI RICE with displacement >30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 14.94 MMBTU / hour; manufactured in 1960) (Facility Ref. No. 4400-5, C-4)
AA-055	3,475 kW (4,660 HP) Diesel-Fired Engine (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 34.611 MMBTU / hour; manufactured in 1966) (Facility Ref. No. 4400-6, N-1)
AA-056	3,475 kW (4,660 HP) Diesel-Fired Engine (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 34.611 MMBTU / hour; manufactured in 1966) (Facility Ref. No. 4400-7, N-2)
AA-057	3,475 kW (4,660 HP) Diesel-Fired Engine (CI RICE w / displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 34.611 MMBTU / hour; manufactured in 1966) (Facility Ref. No. 4400-8, N-3)
AA-058	3,475 kW (4,660 HP) Diesel-Fired Engine (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 34.611 MMBTU / hour; manufactured in 1966) (Facility Ref. No. 4400-9, N-4)
AA-059	3,475 kW (4,660 HP) Diesel-Fired Engine (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 34.611 MMBTU / hour; manufactured in 1966) (Facility Ref. No. 4400-10, N-5)
AA-060	3,475 kW (4,660 HP) Diesel-Fired Engine (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 34.611 MMBTU / hour; manufactured in 1966) (Facility Ref. No. 4400-11, N-6)

Emission Point	Description
AA-061	3,475 kW (4,660 HP) Diesel-Fired Engine (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 34.611 MMBTU / hour; manufactured in 1966) (Facility Ref. No. 4400-12, N-7)
AA-062	3,475 kW (4,660 HP) Diesel-Fired Engine (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 34.611 MMBTU / hour; manufactured in 1966) (Facility Ref. No. 4400-13, N-8)
AA-063	3,475 kW (4,660 HP) Diesel-Fired Engine (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 34.611 MMBTU / hour; manufactured in 1966) (Facility Ref. No. 4400-14, N-9)
AA-064	3,475 kW (4,660 HP) Diesel-Fired Engine (CI RICE with displacement > 30 liters / cylinder; equipped with DCL oxidation catalyst; total heat input: 34.611 MMBTU / hour; manufactured in 1966) (Facility Ref. No. 4400-15, N-10)
	Miscellaneous Activities
AA-083	Hydrochlorofluorocarbon (HCFC) Distillation and Clean Line Verification Process
AA-084	Facility-Wide Abrasive Blasting Operations
AA-085	Facility-Wide Miscellaneous Paint and Solvent Usage
AA-114	Triethylaluminum – Triethylborane (TEA / TEB) Training Facility
AA-117	Facility-Wide Refrigerant Maintenance Operations
	Test Cells and Test Stands
AA-086	E-1 Complex, Cell 1 (Facility Ref. E-1, C1)
AA-087	E-1 Complex, Cell 2 (Facility Ref. E-1, C2)
AA-088	E-1 Complex, Cell 3 (Facility Ref. E-1, C3)
AA-089	E-3 Complex, Cells 1, 2 And 3 (Facility Ref. E-3, C1, C2, and C3)
AA-095	E-2 Complex, Cell 1 (Facility Ref. E-2, C1)
AA-096	E-2 Complex, Cell 2 (Facility Ref. E-2, C2)
AA-099	B-Complex, Dual Position Test Stand (Facility Ref. B-1/B-2)
AA-100	A-1 Test Stand (Facility Ref. A-1)
AA-101	A-2 Test Stand (Facility Ref. A-2)
AA-103	A-3 Test Stand and Chemical Steam Generating Units (Facility Ref. A-3)

Emission Point	Description
AA-129	Six (6) Engine Test Pads
	Flare Stacks
AA-090	E-3 Cell 2 Flare Stack (Facility Ref. FK-15A7002-LM)
AA-091	E-1 High Pressure Flare Stack (Facility Ref. FK-10A05-HV)
AA-093	E-1 Low Pressure Flare Stack (Facility Ref. FK-10A06-LH)
AA-094	E-1 Facility Flare Stack (Facility Ref. FK-10A02-LH)
AA-097	E-2 Low Pressure Flare Stack (Facility Ref. FK-14H19-LH)
AA-098	E-2 Turbine Exhaust Flare Stack (Facility Ref. FK-14x30-GH)
AA-102	B-2 Test Stand Flare (Facility Ref. No. 4120C-1)
AA-104	A-3 Test Stand Flare No. 1
AA-105	A-3 Test Stand Flare No. 2
AA-121	High Pressure Gas Flare (Facility Ref. 3320)
AA-122	Cryogenic Storage Hydrogen Flare (Facility Ref. 3415)
AA-123	A-1 Test Stand Flare No. 1 (Facility Ref. 4120A-1)
AA-124	A-1 Test Stand Flare No. 2 (Facility Ref. 4120B-2)
AA-125	A-2 Test Stand Flare No. 1 (Facility Ref. 4122A-1)
AA-126	A-2 Test Stand Flare No. 2 (Facility Ref. 4122B-2)
AA-127	B-1 Test Stand Flare No. 1 (Facility Ref. 4220A-1)
AA-128	B-1 Test Stand Flare No. 2 (Facility Ref. 4220B-2)

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. FACILITY-WIDE EMISSION LIMITATIONS & STANDARDS

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

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

(b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed sixty (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 (1) hour.

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

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

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

3.A.3 The permittee shall not cause 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 gas-borne 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
AA-000 (Facility-Wide)	11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the PSD Permit to Construct issued March 26, 2001 **(Major Source Avoidance Limits)**	3.B.1	HAPs	9.40 tpy (Individual) 24.40 tpy (Total) (Rolling 12-Month Totals)
AA-002 AA-012 through AA-020 AA-022 AA-023 AA-024 AA-115 AA-119 AA-120	11 Miss. Admin. Code Pt. 2, R. 1.3.D.(1)(a)	3.B.2	PM (filterable)	0.6 lb. / MMBTU
AA-002 AA-012 through AA-020 AA-022 AA-023 AA-024 AA-051 through AA-064 AA-115 AA-118 AA-119 AA-120	40 CFR Part 63, Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines 40 CFR 63.6585(a), (c), (f)(3), 63.6590(a)(1)(iii), (2)(iii) and (c)(1); Subpart ZZZZ	3.B.3	HAPs	General Applicability
AA-002 AA-012 through AA-020 AA-022 AA-023 AA-024 AA-115 AA-118 AA-119 AA-120	40 CFR 60.4211(f)(1) – (3); Subpart IIII 40 CFR 60.4243(d)(1) – (3); Subpart JJJJ 40 CFR 63.6640(f)(1),(2) and (4); Subpart ZZZZ	3.B.4	Operational Requirements	100 Hours / Calendar Year for Maintenance and Readiness Testing; 50 Hours / Calendar Year for Non-Emergency Situations
AA-014 AA-115 AA-119	40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines 40 CFR 60.4230(a)(4)(iv); Subpart JJJJ	3.B.5	NO_X CO VOCs	General Applicability

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
AA-115 AA-119	40 CFR 60.4233(d),(e), 60.4234, and 60.4243(b)(1); Subpart JJJJ	3.B.6	NO_X CO VOCs	Applicable Emission Standards
AA-015 through AA-020 AA-022 AA-023 AA-118	40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60.4200(a)(2)(i); Subpart IIII	3.B.7	NMHC + NO_X CO PM	General Applicability
	40 CFR 60.4205(b), 60.4206, and 60.4211(c); Subpart IIII	3.B.8		Applicable Emission Standards
	40 CFR 60.4207(b); Subpart IIII	3.B.9	Fuel Requirement	15 ppm Sulfur Content (Max.); and 40 Cetane Index (Min.) or 35% Aromatic Content (Max. – by volume)
AA-051 through AA-064	40 CFR 63.6603(a), 63.6605(a) and Table 2d (Item 3); Subpart ZZZZ	3.B.10	CO	23 ppmvd at 15% Oxygen; or Reduce CO by 70% or More
	40 CFR 63.6603(a), 63.6605(a) and Table 2b (Item 2); Subpart ZZZZ	3.B.11	Pressure Drop Temperature	Operational Limitations
	40 CFR 63.6625(g); Subpart ZZZZ	3.B.12	CO	Crankshaft Operational Requirements
AA-051 through AA-064 AA-118	11 Miss. Admin. Code Pt. 2, R. 1.3.D.(1)(b).	3.B.13	PM (filterable)	$E = 0.8808 \cdot (I^{-0.1667})$
AA-086 through AA-091 AA-093 through AA-105	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 26, 2001 and modified August 6, 2007 **(PSD BACT Limits)**	3.B.14	PM	10,270.0 lb. / Test 24.4 tpy (Rolling 12-Month Total)
			PM_{10} (filterable + condensable)	6,060.0 lb. / Test 14.4 tpy (Rolling 12-Month Total)
			SO_2	2,520.0 lb. / Test 39.4 tpy (Rolling 12-Month Total)
			NO_X	2,520.0 lb. / Test 39.4 tpy (Rolling 12-Month Total)
			CO	558,600.0 lb. / Test 1,300.0tpy (Rolling 12-Month Total)

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Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limit / Standard
AA-086 through AA-091 AA-093 through AA-105	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 26, 2001 and modified August 6, 2007 **(PSD BACT Limits)**	3.B.14	VOCs	50.0 lb. / Test 39.4 tpy (Rolling 12-Month Total)
AA-086 through AA-089 AA-095 AA-096 AA-099 AA-100 AA-101 AA-103	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 26, 2001 and modified August 6, 2007 **(PSD BACT Limit)** 11 Miss Admin. Code Pt. 2, R. 2.15.C., as modified in the TVOP issued October 10, 2023	3.B.15	PM PM_{10} (filterable + condensable) SO_2 NO_X CO VOCs	Fuel Requirements
	11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 26, 2001 and modified August 6, 2007 **(PSD BACT Limit)**	3.B.16		Hydrocarbon Fuel Requirements
	11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Title V Operating Permit issued February 5, 1998	3.B.17	Fuel Requirement	0.05% Sulfur Content (by weight) in the LOX / RP-1 Propellant
AA-129	11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Title V Operating Permit issued [DATE] **(PSD Avoidance Limits)**	3.B.18	PM	24.9 tpy (Rolling 12-Month Total)
			PM_{10} (filterable + condensable)	14.9 tpy (Rolling 12-Month Total)
			$PM_{2.5}$ (filterable + condensable)	9.9 tpy (Rolling 12-Month Total)
			SO_2	39.9 tpy (Rolling 12-Month Total)
			NO_X	39.9 tpy (Rolling 12-Month Total)
			CO	99.9 tpy (Rolling 12-Month Total)
			VOCs	39.9 tpy (Rolling 12-Month Total)

3.B.1 For Emission Point AA-000 (Facility-Wide), the permittee shall limit the emission of each individual hazardous air pollutant (HAP) to no more than 9.40 tons per year (tpy) based on a rolling 12-month total and all HAPs in total to no more than 24.40 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the PSD Permit to Construct issued March 26, 2001 – Major Source Avoidance Limits)

3.B.2 For Emission Points AA-002, AA-012 through AA-020, AA-022, AA-023, AA-024, AA-115, AA-119, and AA-120, the maximum permissible emission of ash and/or particulate matter (PM) from any fossil fuel burning installation with a heat input rate less than ten (10) million BTU (MMBTU) per hour shall not exceed 0.6 pounds per MMBTU per hour heat input.

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

3.B.3 For Emission Points AA-002, AA-012 through AA-020, AA-022, AA-023, AA-024, AA-051 through AA-064, AA-115, AA-118, AA-119, and AA-120, the permittee is subject to and shall comply with the applicable requirements found in 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants (NESHAP) from Stationary Reciprocating Internal Combustion Engines (RICE) and 40 CFR Part 63, Subpart A – General Provisions (as required in Table 8 of Subpart ZZZZ).

Emission Points AA-002, AA-012, AA-013, AA-024 and AA-120 are considered "existing" emergency stationary RICE (i.e. construction commenced prior to June 12, 2006) located at an "institutional facility" that is a HAP area source. Therefore, such engines are not subject to the requirements found in Subpart ZZZZ **but** must comply with the operational requirements specified in Condition 3.B.4.

Emission Points AA-014 through AA-020, AA-022, AA-023, AA-115, AA-118, and AA-119 are considered "new" stationary RICE (i.e. construction commenced after June 12, 2006). Therefore, the permittee shall comply with Subpart ZZZZ by complying with the requirements found in 40 CFR Part 60, Subpart IIII or 40 CFR Part 60, Subpart JJJJ (as applicable). No further requirements apply for such engines under Subpart ZZZZ.

Emission Points AA-051 through AA-064 are considered "existing" stationary RICE and must comply with the applicable requirements found in Subpart ZZZZ.

(Ref.: 40 CFR 63.6585(a), (c), (f)(3), 63.6590(a)(1)(iii), (2)(iii), and (c)(1); Subpart ZZZZ)

3.B.4 For Emission Points AA-002, AA-012 through AA-020, AA-022, AA-023, AA-024, AA-115, AA-118, AA-119, and AA-120, any operation of an engine for any reason other than emergency operation, maintenance and testing, and operation in non-emergency situations for fifty (50) hours per year is prohibited. If an engine is not operated in accordance with paragraphs (a) through (c) of this condition, the engine will not be

considered an emergency engine under the referenced regulation and shall meet all requirements for a corresponding non-emergency engine.

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

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

(c) The permittee may operate an engine for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing.

Except as specified in 40 CFR 60.4211(f)(3)(i); Subpart IIII, 40 CFR 60.4243(d)(3)(i); Subpart JJJJ, or 40 CFR 63.6640(f)(4)(ii); Subpart ZZZZ (as applicable), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid, or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 60.4211(f)(1) – (3); Subpart IIII)
(Ref.: 40 CFR 60.4243(d)(1) – (3); Subpart JJJJ)
(Ref.: 40 CFR 63.6640(f)(1), (2), and (4); Subpart ZZZZ)

3.B.5 For Emission Points AA-115 and AA-119, the permittee is subject to and shall comply with the applicable requirements found in 40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE) and 40 CFR Part 60, Subpart A – General Provisions (as required in Table 3 of Subpart JJJJ).

Emission Point AA-014 is an emergency stationary SI ICE that was manufactured prior to January 1, 2009. Therefore, the engine is exempt from complying with the requirements found in Subpart JJJJ **but** must comply with the operational requirements specified in Condition 3.B.4.

(Ref.: 40 CFR 60.4230(a)(4)(iv); Subpart JJJJ)

3.B.6 For Emission Points AA-115 and AA-119, the permittee shall purchase an engine that complies with the applicable emission standards (in grams per horsepower-hour) outlined in the following table:

Rated Power (HP)	Model Year[1]	NO_X + HC	NO_X	CO	VOCs
25 < HP < 130	2009	10	-	387	-
HP ≥ 130	2009	-	2.0	4.0	1.0

[1] Indicates the model year for which the standards take effect.

The permittee shall operate and maintain each engine in such a manner as to achieve the referenced emission standards over the entire life of the engine.

(Ref.: 40 CFR 60.4233(d), (e), 60.4234, and 60.4243(b)(1); Subpart JJJJ)

3.B.7 For Emission Points AA-015 through AA-020, AA-022, AA-023, and AA-118, the permittee is subject to and shall comply with the applicable requirements found in 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) and 40 CFR Part 60, Subpart A – General Provisions (as required in Table 8 of Subpart IIII).

(Ref.: 40 CFR 60.4200(a)(2)(i); Subpart IIII)

3.B.8 For Emission Points AA-015 through AA-020, AA-022, AA-023, and AA-118, the permittee shall purchase an engine that complies with the applicable emission standards (in grams per kilowatt-hour) in the following table:

Rated Power (kW)	Tier	Model Year[1]	NMHC + NO_X	CO	PM
130 ≤ kW ≤ 560	Tier 3	2006	4.0	3.5	0.20
kW > 560	Tier 2	2006	6.4	3.5	0.20

[1] Indicates the model year for which the standards take effect.

The permittee shall operate and maintain each engine in such a manner as to achieve the referenced emission standards over the entire life of the engine.

(Ref.: 40 CFR 60.4205(b), 60.4206, and 60.4211(c); Subpart IIII)

3.B.9 For Emission Points AA-015 through AA-020, AA-022, AA-023, and AA-118, the permittee shall only combust ultra-low-sulfur diesel (ULSD) fuel within each engine that meets the following requirements (on a per-gallon basis):

(a) A maximum sulfur content of fifteen (15) ppm; and

(b) A minimum cetane index of forty (40) or a maximum aromatic content of thirty-five (35) volume percent.

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

3.B.10 For Emission Points AA-051 through AA-064, except during periods of start-up, the permittee shall at all times comply with one (1) of the following carbon monoxide (CO) emissions standards:

(a) Limit the emission of CO to no more than twenty-three (23) parts per million by volume, dry (ppmvd) at fifteen (15) percent oxygen; or

(b) Reduce the emission of CO by at least seventy (70) percent.

(Ref.: 40 CFR 63.6603(a), 63.6605(a), and Table 2d (Item 3); Subpart ZZZZ)

3.B.11 For Emission Points AA-051 through AA-064, except during periods of start-up, the permittee shall comply with the following operating limits:

(a) Maintain the catalyst within each engine so that the pressure drop across the catalyst does not change by more than two (2) inches of water from the pressure drop established during the initial performance test; and

(b) Maintain the temperature of the exhaust from each engine so that the catalyst inlet temperature is greater than / equal to 450ºF and less than / equal to 1,350ºF.

(Ref.: 40 CFR 63.6603(a), 63.6605(a), and Table 2b (Item 2); Subpart ZZZZ)

3.B.12 For Emission Points AA-051 through AA-064, the permittee shall comply with one (1) of the following operational standards **if** an engine is not equipped with a closed crankcase ventilation system:

(a) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere; or

(b) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

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

3.B.13 For Emission Points AA-051 through AA-064 and AA-118, the maximum permissible emission of ash and/or PM from any fossil fuel burning installation with a heat input rate equal to or greater than ten (10) MMBTU per hour but less than 10,000 MMBTU per hour shall not exceed an emission rate as determined by the following relationship:

$$E = 0.8808 \cdot (I^{-0.1667})$$

where “E” is the emission rate in pounds per MMBTU per hour heat input and “I” is the heat input in MMBTU per hour.

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

3.B.14 For Emission Points AA-086 through AA-091 and AA-093 through AA-105, the permittee shall limit the emission of the following pollutants from all sources combined:

(a) Particulate matter (PM): no more than 10,270.0 pounds per test (i.e. a test cell / stand and corresponding flare(s)) and 24.4 tpy based on a rolling 12-month total;

(b) Particulate matter less than 10 microns (µm) in diameter (PM_{10}) (filterable and condensable): no more than 6,060.0 pounds per test and 14.4 tpy based on a rolling 12-month total;

(c) Sulfur dioxide (SO_2): no more than 2,520.0 pounds per test and 39.4 tpy based on a rolling 12-month total;

(d) Nitrogen oxides (NO_X): no more than 2,520.0 pounds per test and 39.4 tpy based on a rolling 12-month total;

(e) Carbon monoxide (CO): no more than 558,600.0 pounds per test and 1,300.0 tpy based on a rolling 12-month total; and

(f) Volatile organic compounds (VOCs): no more than 50.0 pounds per test and 39.4 tpy based on a rolling 12-month total;

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 26, 2001 and modified August 6, 2007 – PSD BACT Limits)

3.B.15 For Emission Points AA-086 through AA-089, AA-095, AA-096, AA-099, AA-100, AA-101, and AA-103, the permittee is allowed to use "Liquid Hydrogen (LH2) / Liquid Oxygen (LOX)" fuel and hydrocarbon-based fuels for engine testing. Additionally, the permittee may use other fuels and/or oxidizers (solid, liquid, or gaseous) for testing provided the permittee complies with the limits specified in Condition 3.B.14

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 26, 2001 and modified August 6, 2007)

(Ref.: 11 Miss Admin. Code Pt. 2, R. 2.15.C., as modified in the Title V Operating Permit issued October 10, 2023)

3.B.16 For Emission Points AA-086 through AA-089, AA-095, AA-096, AA-099, AA-100, AA-101, and AA-103, the permittee shall generate a modeling run using the NASA-LEWIS chemical equilibrium computer program (or an equivalent version) for each test using a hydrocarbon-based fuel (or any other similar fuel) by inputting the following parameters: reactant fuel, oxidizer, and the weight percentage for each constituent.

However, if the fuel / oxidizer ratio and the quantity of propellant is identical for a series of tests, the permittee may perform a single representative modeling run to generate the emission rates for the tests.

(Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 5. and 40 CFR 52.21(j), as established in the PSD Permit to Construct issued March 26, 2001 and modified August 6, 2007)

3.B.17 For Emission Points AA-086 through AA-089, AA-095, AA-096, AA-099, AA-100, AA-101, and AA-103, the permittee shall limit the sulfur content in the LOX/RP-1 propellant to no more than 0.05% by percent weight.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Title V Operating Permit issued February 5, 1998)

3.B.18 For Emission Point AA-129, the permittee shall limit the emission of the following pollutants from all test pads combined:

(a) Particulate matter (PM): 24.9 tpy based on a rolling 12-month total;

(b) Particulate matter less than 10 microns (µm) in diameter (PM_{10}) (filterable and condensable): 14.9 tpy based on a rolling 12-month total;

(c) Particulate matter less than 2.5 microns (µm) in diameter ($PM_{2.5}$) (filterable and condensable): 9.9 tpy based on a rolling 12-month total;

(d) Sulfur dioxide (SO_2): 39.9 tpy based on a rolling 12-month total;

(e) Nitrogen oxides (NO_X): 39.9 tpy based on a rolling 12-month total;

(f) Carbon monoxide (CO): 99.9 tpy based on a rolling 12-month total; and

(g) Volatile organic compounds (VOCs): 39.9 tpy based on a rolling 12-month total.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Title V Operating Permit issued [DATE] – PSD Avoidance Limits)

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 lb. / MMBTU
11 Miss. Admin. Code Pt. 2, R. 1.4.A.(1).	3.C.2	SO_2	4.8 lb. / MMBTU

3.C.1 The maximum permissible emission of ash and/or PM from any fossil fuel burning installations of less than ten (10) MMBTU 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 MMBTU 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-015 through AA-020 AA-022 AA-023 AA-115 AA-118 AA-119	40 CFR 60.4211(a); Subpart IIII 40 CFR 60.4243(a)(1) and (b)(1); Subpart JJJJ	3.D.1	NMHC + NO_X CO PM VOCs Opacity (Smoke)	Perform Best Management Practices
	40 CFR 60.4211(g); Subpart IIII 40 CFR 60.4243(a)(2) and (b)(1); Subpart JJJJ	3.D.2		Compliance Requirements (As Applicable)
AA-051 through AA-064	40 CFR 63.6605(b); Subpart ZZZZ	3.D.3	CO	General Duty Clause
	40 CFR 63.6625(h); Subpart ZZZZ	3.D.4		Minimize Idling Time During Periods of Start-Up
	40 CFR 63.6625(g); Subpart ZZZZ	3.D.5		Follow Maintenance Requirements for Crankshaft Ventilation System

3.D.1 For Emission Points AA-015 through AA-020, AA-022, AA-023, AA-115, AA-118, and AA-119, the permittee shall comply with the following practices to maintain compliance with the applicable emission standards specified in Conditions 3.B.6 and 3.B.8:

(a) Operate and maintain each engine and control device (if any) in accordance with the manufacturer's emission-related written instructions;

(b) Change only those emission-related settings that are permitted by the manufacturer;

(c) Keep records on any maintenance conducted on an engine; and

(d) Meet the requirements of 40 CFR Part 1068 (as applicable).

(Ref.: 40 CFR 60.4211(a); Subpart IIII)
(Ref.: 40 CFR 60.4243(a)(1) and (b)(1); Subpart JJJJ)

3.D.2 For Emission Points AA-015 through AA-020, AA-022, AA-023, AA-115, AA-118, and AA-119, the permittee shall demonstrate compliance with the emission standards specified in Conditions 3.B.6 and 3.B.8 through the following actions **if** the permittee either does not operate and maintain the engine in accordance with the manufacturer's emission-related written instructions or changes emission-related settings in a way that is not permitted by the manufacturer:

(a) Keep a maintenance plan;

(b) Maintain records of conducted maintenance; and

(c) Maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions (to the extent practicable).

(d) For an engine rated equal to or less than 500 HP, the permittee shall conduct a performance test to demonstrate compliance with the applicable emission standards in accordance with one of the following deadlines (as applicable):

(1) Within one (1) year of start-up;

(2) Within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions; or

(3) Within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer.

For an engine rated greater than 500 HP, subsequent testing must be performed every 8,760 hours of engine operation or three (3) years (whichever comes first).

(Ref.: 40 CFR 60.4211(g); Subpart IIII)
(Ref.: 40 CFR 60.4243(a)(2) and (b)(1); Subpart JJJJ)

3.D.3 For Emission Points AA-051 through AA-064, the permittee shall operate and maintain the units, at all times, including associated air pollution control equipment 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 any further efforts to reduce emissions if levels required by Subpart ZZZZ have been achieved.

The 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(b); Subpart ZZZZ)

3.D.4 For Emission Points AA-051 through AA-064, the permittee shall minimize the time spent at idle during an engine start-up and minimize the start-up time to a period needed for appropriate and safe loading of an engine (not to exceed thirty (30) minutes) after which time the applicable emission standard specified in Condition 3.B.10 shall apply.

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

3.D.5 For Emission Points AA-051 through AA-064, the permittee shall follow the manufacturer-specified maintenance requirements for operating and maintaining the applicable crankshaft system (closed or open) and for replacing the crankshaft filters. However, the permittee may request the MDEQ to approve different maintenance

requirements that are as protective as manufacturer requirements as manufacturer's requirements.

(Ref.: 40 CFR 63.6625(g); 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 of each year for the preceding calendar year. If the permit was reissued or modified during the course of the preceding calendar year, the certification of compliance shall address each version of the permit. Each compliance certification shall include the following items:

(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), and (d).)

SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

A. GENERAL MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

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

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

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

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

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

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

(d) The analytical techniques or methods used;

(e) The results of such analyses; and

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

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

5.A.3 Except where a longer duration is specified in an applicable requirement, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting 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 of each calendar year for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with Mississippi Administrative Code, Title 11, Part 2, Chapter 6, Rule 6.2.E.

For applicable periodic reporting requirements in 40 CFR Parts 60, 61, and 63, the permittee shall comply with the deadlines in this condition for reporting conducted on a semiannual basis. Additionally, any required quarterly reports shall be submitted by the end of the month following each calendar quarter (i.e. April 30, July 31, October 31, and

January 31) and any required annual reports shall be submitted by January 31 following each calendar year.

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

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. The report shall be made within five (5) working days of the time the deviation began.

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

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

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

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

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

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

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

B. SPECIFIC MONITORING AND RECORDKEEPING REQUIREMENTS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring / Recordkeeping Requirement
AA-000 (Facility-Wide)	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).	5.B.1	HAPs	Calculate Emissions (Monthly and Rolling 12-Month Totals)
AA-002 AA-012 through AA-020 AA-022 AA-023 AA-024 AA-051 through AA-064 AA-115 AA-118 AA-119 AA-120	40 CFR 60.4214(b); Subpart IIII 40 CFR 60.4245(b); Subpart JJJ 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.2	$NMHC + NO_X$ CO PM VOCs Opacity (Smoke)	Record Hours of Operation (Emergency and Non-Emergency)
AA-015 through AA-020 AA-022 AA-023 AA-115 AA-118 AA-119	40 CFR 60.4214(a)(2)(i) – (iv); Subpart IIII 40 CFR 60.4245(a)(1) – (4); Subpart JJJ 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.3	$NMHC + NO_X$ CO PM VOCs Opacity (Smoke)	Recordkeeping Requirements
AA-051 through AA-064	40 CFR 63.6615, 63.6620(a), (b), (e), (i), 63.6640(b), Table 3 (Item 4), and Table 4 (Item 1 or 3); Subpart ZZZZ	5.B.4	CO	Conduct Routine Performance Testing Calculate the Final Applicable Result
	40 CFR 63.6625(b); Subpart ZZZZ 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.5	Catalyst Inlet Temperature	Operate and Maintain a CPMS Maintain a Site-Specific Monitoring Plan
	40 CFR 63.6635; Subpart ZZZZ	5.B.6		Monitoring / Data Collection Requirements
	40 CFR 63.6640(a), 63.6655(d), and Table 6 (Item 10); Subpart ZZZZ	5.B.7	Catalyst Inlet Temperature Catalyst Pressure Drop	Continuous Compliance Requirements
AA-051 through AA-064	40 CFR 63.6655(a) – (b); Subpart ZZZZ	5.B.8	CO	Recordkeeping Requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring / Recordkeeping Requirement
AA-085	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.9	VOCs HAPs	Maintain Information on Applicable Materials
AA-086 through AA-089 AA-095 AA-096 AA-099 AA-100 AA-101 AA-103 AA-129	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).	5.B.10	PM (filterable) PM_{10} (filterable + condensable) SO_2 NO_X CO VOCs	Recordkeeping Requirements (Engine Testing) Calculate Emissions (Monthly and Rolling 12-Month Total)
AA-090 AA-091 AA-093 AA-094 AA-097 AA-098 AA-102 AA-104 AA-105	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).	5.B.11		Recordkeeping Requirements (Flare Operation) Calculate Emissions (Monthly and Rolling 12-Month Total)

5.B.1 For Emission Point AA-000 (Facility-Wide), the permittee shall calculate and record the emission of each individual HAP and all combined HAPs (as applicable) in tons on both a monthly and rolling 12-month total basis.

Unless otherwise specified herein, the permittee shall include all reference data utilized to validate the calculated emissions (e.g. operational data, applicable emission factors, engineering judgement determinations, stack testing data, etc.).

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

5.B.2 For Emission Points AA-002, AA-012 through AA-020, AA-022, AA-023, AA-024, AA-051 through AA-064, AA-115, AA-118, AA-119, and AA-120, the permittee shall monitor and record (via a non-resettable hour meter for emergency use engines) the hours of operation for each engine on a monthly basis for both emergency and non-emergency service. Additionally, the permittee shall detail (in writing) and maintain what classified each occurrence as either an “emergency” or a “non-emergency”.

(Ref.: 40 CFR 60.4214(b); Subpart IIII and 40 CFR 60.4245(b); Subpart JJJJ)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(a)(2).)

5.B.3 For Emission Points AA-015 through AA-020, AA-022, AA-023, AA-115, AA-118, and AA-119, the permittee shall maintain documentation that details the following information:

(a) All notifications submitted to comply with Subparts IIII and JJJJ;

(b) Any maintenance conducted on an engine;

(c) Documentation from the manufacturer that indicates the engine is certified to meet the emission standards specified in Conditions 3.B.6 and 3.B.8; and

(d) If the engine is not certified or is certified but operating in a non-certified manner, documentation that indicates the engine meets the emission standards specified in Conditions 3.B.6 and 3.B.8.

(Ref.: 40 CFR 60.4214(a)(2)(i) – (iv); Subpart IIII)
(Ref.: 40 CFR 60.4245(a)(1) – (4); Subpart JJJJ)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.4 For Emission Points AA-051 through AA-064, the permittee shall demonstrate compliance with one (1) of the CO emission standards specified in Condition 3.B.10 by conducting routine performance testing on each engine every 8,760 hours of operation or once every three (3) years (whichever comes first).

All performance testing shall be conducted in accordance with the procedures specified in either Item 1 or Item 3 in Table 4 of Subpart ZZZZ (contingent upon the specified CO emission standard).

The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application.

The permittee shall utilize the emissions data from a performance test in conjunction with the applicable equation(s) found in either 40 CFR 63.6620(e)(1) or (e)(2), Subpart ZZZZ to determine the final CO result.

If the catalyst is changed, the permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the values of the operating parameters are reestablished, the permittee shall also conduct a performance test to demonstrate that the required CO emission standard is met.

(Ref.: 40 CFR 63.6615, 63.6620(a), (b), (e), (i), 63.6640(b), Table 3 (Item 4), and Table 4 (Item 1 or 3); Subpart ZZZZ)

5.B.5 For Emission Points AA-051 through AA-064, the permittee shall operate and maintain a continuous parameter monitoring system (CPMS) that collects the catalyst inlet temperature in accordance with the site-specific monitoring plan and the provisions specified in 40 CFR 63.6625(b)(3) – (6), Subpart ZZZZ.

The site-specific monitoring plan shall address the monitoring system design, data collection, and the quality assurance / quality control elements specified in 40 CFR

63.6625(b)(1)(i) – (v), Subpart ZZZZ. Additionally, the permittee shall maintain the plan on-site.

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

5.B.6 For Emission Points AA-051 through AA-064, the permittee shall monitor and collect the catalyst inlet temperature and pressure drop at all times an engine is operating (except for periods of monitor malfunction, associated repair, required performance evaluation, and required quality assurance / control activities).

For the purpose of this permit, a "monitoring malfunction" is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. However, a monitoring failure that is caused in part by poor maintenance or careless operation is not a malfunction.

The permittee shall not use data recorded during periods of monitoring malfunction, associated repair, and required quality assurance / control activity in data averages and calculations used. For all other periods, the permittee shall use all the valid data collected.

(Ref.: 40 CFR 63.6635; Subpart ZZZZ)

5.B.7 For Emission Points AA-051 through AA-064, the permittee must demonstrate continuous compliance with the applicable CO emission standard specified in Condition 3.B.10 and the operating limitations specified in Condition 3.B.11 by monitoring the catalyst inlet temperature and catalyst pressure drop in accordance with the following requirements:

(a) For the catalyst inlet temperature: Reduce and maintain the data collected in accordance with Conditions 5.B.5 and 5.B.6 to rolling 4-hour averages.

(b) For the catalyst pressure drop: Measure the differential pressure drop across the catalyst once per month.

(Ref.: 40 CFR 63.6640(a), 63.6655(d), and Table 6 (Item 10); Subpart ZZZZ)

5.B.8 For Emission Points AA-051 through AA-064, the permittee shall maintain documentation that contains the following information:

(a) A copy of each notification and report submitted to comply with Subpart ZZZZ (including all documentation supporting any Notification of Compliance Status).

(b) Records on the occurrence and duration of each malfunction of an engine or the associated air pollution control / monitoring equipment;

(c) Records on any required performance tests and/or performance evaluations;

(d) Records on all required maintenance performed on air pollution control / monitoring equipment;

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

(f) For each CPMS, the permittee shall maintain the following information:

(1) Records described in 40 CFR 63.10(b)(2)(vi) – (xi), Subpart A;

(2) Previous (i.e. superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3), Subpart A; and

(3) Any request for alternatives to the relative accuracy test for a CPMS as required in 40 CFR 63.8(f)(6)(i), Subpart A (if applicable).

(Ref.: 40 CFR 63.6655(a) – (b); Subpart ZZZZ)

5.B.9 For Emission Point AA-085, the permittee shall maintain documentation that details the following information for each coating, adhesive, thinner, solvent, or other VOC- / HAP-containing material used on a monthly basis:

(a) The product name or identification;

(b) Total quantity used (in gallons);

(c) The VOC and/or HAP content (in weight percent) as well as description of the method used to determine the VOC and HAP content.

The permittee may utilize data supplied by either the manufacturer or an analysis of the VOC and/or HAP content by an applicable test method (i.e. EPA Test Method 24, EPA Test Method 311, and/or an alternative EPA-approved test method).

(d) The density (in pounds per gallon); and

(e) The solids content (in weight percent) (as applicable).

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

5.B.10 For Emission Points AA-086 through AA-089, AA-095, AA-096, AA-099, AA-100, AA-101, AA-103, and AA-129, the permittee shall maintain documentation that details the following information for each test conducted:

(a) The duration of the test;

(b) The product name or general identification of each fuel, propellant, and oxidizer used;

(c) The quantity or volume (as applicable) of each fuel, propellant, and/or oxidizer used;

(d) The total emission (in pounds) of PM, PM_{10} (filterable and condensable), SO_2, NO_X, CO, and VOCs as well as the corresponding data used to determine pollutant emissions; and

(e) For Emission Point AA-129, the total emission (in pounds) of $PM_{2.5}$ (filterable and condensable) and the corresponding data used to determine pollutant emissions.

Additionally, the permittee shall calculate and record the emission of PM, PM_{10} (filterable and condensable), SO_2, NO_X, CO, and VOCs from each source in tons on both a monthly and rolling 12-month total basis. For Emission Point AA-129, the permittee shall calculate and record the emission of $PM_{2.5}$ (filterable and condensable) in tons on both a monthly and rolling 12-month total basis.

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

5.B.11 For Emission Points AA-090, AA-091, AA-093, AA-094, AA-097, AA-098, AA-102, AA-104 and AA-105, the permittee shall maintain documentation that details the following information for each flaring operation (as applicable):

(a) The duration of the flaring operation;

(b) The composition of the gas(es) being flared; and

(c) The total emission (in pounds) of PM, PM_{10} (filterable and condensable), SO_2, NO_X, CO, and VOCs from the flaring of gases generated by the corresponding test.

Additionally, the permittee shall calculate and record the emission of PM, PM_{10} (filterable and condensable), SO_2, NO_X, CO, and VOCs from each source in tons on both a monthly and rolling 12-month total basis.

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

C. SPECIFIC REPORTING REQUIREMENTS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Reporting Requirement
AA-000 (Facility-Wide)	11 Miss. Admin. Code Pt. 2, R. 6.3.A.(3)(c)(1).	5.C.1	PM (filterable) PM_{10} (filterable and condensable) SO_2 NO_X CO VOCs HAPs	Submit a Semi-Annual Monitoring Report
AA-051 through AA-064	40 CFR 63.6645(g); Subpart ZZZZ 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(11).	5.C.2	CO	Submit a Notice of Intent for Performance Testing
	40 CFR 63.6620(i) and 63.6645(h)(2); Subpart ZZZZ	5.C.3		Submit Performance Test Results
	40 CFR 63.6650(a), (b)(3) – (4), (c), (e), and Table 7 (Item 1); Subpart ZZZZ	5.C.4		Submit a Semi-Annual Compliance Report

5.C.1 For Emission Point AA-000 (Facility-Wide), the permittee shall submit a semi-annual monitoring report (SMR) in accordance with Condition 5.A.4 that contains the following information:

(a) The total emission of each individual HAP and all HAPs combined from all applicable sources in tons on a both a monthly and rolling 12-month total basis as well as the corresponding data utilized to validate the calculated emissions;

(b) For Emission Points AA-002, AA-012 through AA-020, AA-022, AA-023, AA-024, AA-051 through AA-064, AA-115, AA-118, AA-119, and AA-120 – the hours of operation for the engines (including a summary on how many hours are spent for emergency operation, what classified the operation as an emergency situation, how many hours are spent for non-emergency operation, and the circumstance(s) for non-emergency operation);

(c) For Emission Points AA-086 through AA-091 and AA-093 through AA-105 – the report shall include the following information:

(1) The respective number of tests and flaring operations conducted on a monthly basis as well as the duration for each event;

(2) The highest short-term emission rate of PM, PM_{10} (filterable and condensable), SO_2, NO_X, CO, and VOCs calculated (in pounds per test) for each source; and

(3) The total emission of PM, PM_{10} (filterable and condensable), SO_2, NO_X, CO, and VOCs from each source in tons both on a monthly and rolling 12-month total basis.

(d) For Emission Point AA-129 – the report shall include the following information:

(1) The number of tests conducted on a monthly basis and the duration for each event; and

(2) The total emission of PM, PM_{10} (filterable and condensable), $PM_{2.5}$ (filterable and condensable), SO_2, NO_X, CO, and VOCs in tons both on a monthly and rolling 12-month total basis.

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

5.C.2 For Emission Points AA-051 through AA-064, the permittee shall submit a Notification of Intent to conduct a performance test required by Condition 5.B.4 at least sixty (60) days before the performance test is scheduled to begin. The notification shall detail the procedures and test methods to be implemented during the actual testing.

If deemed necessary by the MDEQ, a conference may be required prior to the intended testing date to discuss the proposed test methods and procedures outlined in the performance testing protocol.

(Ref.: 40 CFR 63.6645(g); Subpart ZZZZ)
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(11).)

5.C.3 For Emission Points AA-051 through AA-064, the permittee shall submit the results of a performance test required by Condition 5.B.4 to the MDEQ no later than sixty (60) days after the date the performance test was completed.

Additionally, the following information shall be included with the results from a performance test: the average percent load determination, the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test.

All assumptions made to estimate or calculate the percent load during the performance test must be clearly explained. If measurement devices (such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc.) are used, the model number of the measurement device and an estimate of its accurate in percentage of true value must be provided.

(Ref.: 40 CFR 63.6620(i) and 63.6645(h)(2); Subpart ZZZZ)

5.C.4 For Emission Points AA-051 through AA-064, the permittee shall submit a semi-annual compliance report in accordance with Condition 5.A.4 that contains the following information (as applicable):

(a) The company name and address;

(b) A statement by a Responsible Official, with that official's name, title, and signature, certifying the accuracy of the content of the report;

(c) If there was a malfunction during the reporting period, the report shall include the following information:

(1) The number, duration, and a brief description for each type of malfunction that occurred during the reporting period and which caused / may have caused any applicable emission limitation to be exceeded; and

(2) A description of actions taken during the malfunction to minimize emissions in accordance with Condition 3.D.3 including actions taken to correct the malfunction.

(d) If there are no deviations from any emission limitations or operating limitations, a statement that there were no deviations from the applicable emission limitations or operating limitations during the reporting period;

(e) If there were no periods during which a CPMS was out-of-control [as specified in 40 CFR 63.8(c)(7), Subpart A], a statement that there were not periods during which the CPMS was out-of-control during the reporting period;

(f) If there was a deviation from an applicable CO emission standard, an operating limitation, and/or the CPMS was out-of-control during the reporting period, the report shall include the following information:

(1) The date and time that each malfunction started and stopped as well as the duration that a CPMS was inoperative [except for zero (low-level) and high-level checks] or out-of-control, including the information specified in 40 CFR 63.8(c)(8), Subpart A;

(2) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period;

(3) 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;

(4) A breakdown 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;

(5) A summary of the total duration of CPMS downtime during the reporting period and the total duration of CPMS downtime as a percent of the total operating time at which the CPMS downtime occurred during that reporting period;

(6) A brief description of the engine;

(7) A brief description of the CPMS;

(8) The date of the latest CPMS certification or audit; and

(9) A description of any changes in a CPMS, process, or controls since the last reporting period.

(Ref.: 40 CFR 63.6650(a), (b)(3) – (4), (c), (e), and Table 7 (Item 1); Subpart ZZZZ)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

6.1 None permitted.

SECTION 7. TITLE VI REQUIREMENTS

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

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

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

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

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

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

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

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

(a) Servicing, maintaining, or repairing appliances containing class I, class II or non-exempt substitute refrigerants;

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

(c) Refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, as

well as persons selling, offering for sale, and/or purchasing class I, class II, or non-exempt substitute refrigerants.

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

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

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

(b) Any person disposing of halons;

(c) Manufacturers of halon blends; or

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

APPENDIX A

List of Abbreviations Used In this Permit

BACT	Best Available Control Technology
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
DEQ	Mississippi Department of Environmental Quality
EPA	United States Environmental Protection Agency
gr/dscf	Grains Per Dry Standard Cubic Foot
HP	Horsepower
HAP	Hazardous Air Pollutant
lb/hr	Pounds per Hour
M or K	Thousand
MACT	Maximum Achievable Control Technology
MM	Million
MMBTUH	Million British Thermal Units per Hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61, or National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 CFR 63
NMVOC	Non-Methane Volatile Organic Compounds
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 µm in diameter
$PM_{2.5}$	Particulate Matter less than 2.5 µm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOHAP	Volatile Organic Hazardous Air Pollutant
VOC	Volatile Organic Compound