STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Mississippi Power Company, Chevron Cogenerating Plant
200 Industrial Road
Chevron Gate 4
Pascagoula, Mississippi
Jackson County

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

Permit Issued: _____

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

_____

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires:[Date not to exceed 5 years from issuance] **Permit No.: 1280-00048**

12237 PER20230001

DRAFT/PROPOSED – 03/06/2025

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

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

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

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

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

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

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

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

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

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

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

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

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

1.8 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.

(a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission

factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgments where such judgments are derived from process and/or emission data which supports the estimates of maximum actual emission.

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

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

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

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

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

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

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

(e) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1.17 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application.

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

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

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

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

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

(1) a brief description of the change(s),

(2) the date on which the change will occur,

(3) any change in emissions, and

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

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

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

1.19 Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in 11 Miss. Admin. Code Pt. 2, Ch. 3., "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared.

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

1.20 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2., "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment," and may require modification of this permit in accordance with Regulations 11 Miss. Admin. Code Pt. 2, Ch. 6., "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act." Modification is defined as [a]ny physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:

(a) routine maintenance, repair, and replacement;

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

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

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

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

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

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

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

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

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

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

1.22 This permit is a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit the source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Facility ID	Description
AA-001	Unit 1	305.9 MMBtu/hr (18 MW) natural gas/refinery fuel gas-fired GE Model L combustion turbine with heat recovery steam generator (HRSG).
AA-002	Unit 2	305.9 MMBtu/hr (18 MW) natural gas/refinery fuel gas-fired GE Model L combustion turbine with heat recovery steam generator (HRSG).
AA-003	Unit 3	305.9 MMBtu/hr (18 MW) natural gas/refinery fuel gas-fired GE Model M combustion turbine with a 122 MMBtu/hr (nominal) natural gas/refinery fuel gas-fired Duct Burner for the heat recovery steam generator (HRSG).
AA-004	Unit 4	305.9 MMBTU/hr (18 MW) natural gas/refinery fuel gas-fired GE Model M combustion turbine with a 122 MMBtu/hr (nominal) natural gas/refinery fuel gas-fired Duct Burner for the heat recovery steam generator (HRSG).
AA-005	Unit 5	1084.6 MMBtu/hr (101 MW) natural gas-fired ABB Model GT11N combustion turbine equipped with a dry low-NO_X combustor system and heat recovery steam generator (HRSG).
AA-012	--	300 horsepower (2.1 MMBtu/hr) Unit #3 diesel-fired Cummins Model V-903-M black start-up engine. (Manufactured date: 1971)
AA-013	--	300 horsepower (2.1 MMBtu/hr) Unit #4 diesel-fired Cummins Model V-903-M black start-up engine. (Manufactured date: 1971)
AA-015	--	619 horsepower (4.33 MMBtu/hr) diesel-fired Caterpillar Model C15 backup generator for emergency control room. (Manufactured date: 2014)
AA-016	__	74 horsepower (0.52 MMBtu/hr) diesel-fired Caterpillar Model 2023 C3.4B portable emergency generator. (Manufactured date: 2024)

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. Facility-Wide Emission Limitations & Standards

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

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

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

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

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

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

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

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

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

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

B. Emission Point Specific Emission Limitations & Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-001 AA-002 AA-003 AA-004 AA-005	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.1	PM (filterable only)	$E = 0.8808*I^{-0.1667}$
	11 Miss. Admin. Code R. 2.2.B(10)., as established in the Title V Operating Permit issued September 29, 1999	3.B.2	Startup, Shutdown, and Upset	Definition of startup, shutdown, and upset
AA-001 AA-002 AA-003 AA-004	11 Miss. Admin. Code R. 2.2.B(10)., as established in the federally enforceable State Permit to Operate issued July 12, 1994, and modified February 14, 1995, and the Title V Operating Permit issued September 29, 1999	3.B.3	Fuel Restrictions	Natural Gas or Refinery Fuel Gas (RFG) only
AA-003 AA-004	40 CFR 60, Subpart Db Standards of Performance for Industrial-Commercial- Institutional Steam Generation Units 40 CFR 60.40b(a), Subpart Db	3.B.4	SO_2, NO_x	Applicability
	40 CFR 60.42b(k)(2), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the federally enforceable Permit to Construct issued May 15, 2019	3.B.5	SO_2	Combust natural gas or refinery fuel gas with a $\leq$ 0.32 lb SO_2/MMBtu heat input
	40 CFR 60.44b(l)(1) and 60.46b(a), Subpart Db	3.B.6	NO_x	0.20 lb/MMBtu (3-hour average)
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.7	SO_2	4.8 lb/MMBtu
AA-005	11 Miss. Admin. Code R. 2.2.B(10)., as established in the Permit to Construct (PTC) issued on March 23, 1995, and modified on January 9, 1996, and TVOP issued on September 29, 1999.	3.B.8	PM/PM_{10}	13.0 lb/hr and 56.9 TPY
			NO_x	15 ppmvd @ 15% O_2 during relative full load operation, not to exceed 60.0 lb/hr and 262.8 TPY
			CO	19.0 lb/hr and 83.2 TPY
			VOC	3.0 lb/hr and 13.1 TPY
			Opacity	$\leq$ 20%

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-005	40 CFR 60, Subpart GG Standards of Performance for Stationary Gas Turbines 40 CFR 60.330, Subpart GG	3.B.9	NO_X, SO_2	Applicability
	40 CFR 60.332(a)(1) and (b), Subpart GG	3.B.10	NO_x	STD = 0.0075((14.4)/Y) + F
	40 CFR 60.333(b), Subpart GG	3.B.11	Fuel sulfur content	Combust only natural gas with a sulfur content ≤ 0.8% by weight (8,000 ppmw)
	40 CFR 72-78 Acid Rain Program Provisions 40 CFR 72.6, Subpart A	3.B.12	NO_x SO_2	Applicability
	40 CFR 97, Subpart EEEEE Cross State Air Pollution Rule (CSAPR) NO_x Ozone Season Group 2 Trading Program 40 CFR 97.804, Subpart EEEEE	3.B.13	NO_x	Applicability
AA-012 AA-013 AA-015 AA-016	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.B.14	PM (filterable only)	0.6 lb/MMBtu
	40 CFR 63, Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines 40 CFR 63.6585, 63.6590(a), 63.6590(c)(1), 63.6665, and Table 8, Subpart ZZZZ	3.B.15	HAPs	Applicability
AA-015 AA-016	40 CFR 60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines 40 CFR 60.4200(a)(2)(i), 60.4218(a), and Table 8, Subpart IIII	3.B.16	NMHC+NO_x, PM, CO	Applicability
AA-015	40 CFR 60.4205(b) and 60.4206, Subpart IIII	3.B.17	NMHC+NO_x	4.0 g/kW-hr
			CO	3.5 g/kW-hr
			PM	0.2 g/kW-hr
			Opacity	See Condition

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-016	40 CFR 60.4205(b) and 60.4206, Subpart IIII	3.B.17	NMHC+NO_x	4.7 g/kW-hr
			CO	5.0 g/kW-hr
			PM	0.4 g/kW-hr
			Opacity	See Condition
AA-015 AA-016	40 CFR 60.4207(b), Subpart IIII	3.B.18	Fuel Restriction	Maximum diesel sulfur content of 15 ppm Minimum cetane index of 40 or maximum aromatic content of 35% vol.
	40 CFR 60.4211(a)(1)-(3) and (c), Subpart IIII	3.B.19	NMHC+NO_x, PM, CO	Purchase, install, operate and maintain a certified engine
	40 CFR 60.4211(f), Subpart IIII	3.B.20	Operational Limit	50 hours/year (non-emergency) and 100 hours/year (total)

3.B.1 For Emission Points AA-001, AA-002, AA-003, AA-004, and AA-005, the permittee shall not have particulate matter (PM) emissions that exceed the emission rate as determined by the relationship:

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

where E is the emission rate in pounds per million BTU per hour heat input and 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.2 For Emission Points AA-001, AA-002, AA-003, AA-004, and AA-005, for purposes of this permit, startup, shutdown, and upset shall be defined as follows:

(a) *Startup* – The bringing into operation from a non-operative condition. Relative to fuel-burning equipment, a startup shall be construed to occur only when a unit is taken from a non-fired to a fired state. A startup period shall end when ignitor fuel is discontinued (or operation at greater than 60% load). The startup period is limited to one (1) hour or less.

(b) *Shutdown* – The termination of operation of equipment. Relative to fuel-burning equipment, a shutdown shall be construed to occur only when a unit is taken from a fired to a non-fired state. A shutdown period will commence when ignitor fuel is required to stabilize the boiler flame until all fans are turned off (or combustion turbine reduces load to less than 60%). The shutdown period is limited to one (1) hour or less.

(c) *Upset* – An unexpected and unplanned condition of operation of the facility in which equipment operates outside of the normal and planned parameters. An upset shall not include a condition of operation caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, operator error, or an intentional startup or shutdown of equipment.

(Ref.: 11 Miss. Admin. Code R. 2.2.B(10)., as established in the Title V Operating Permit issued September 29, 1999)

3.B.3 For Emission Points AA-001, AA-002, AA-003, and AA-004, the permittee shall combust only natural gas or refinery fuel gas (RFG). [RFG is received from the Chevron refinery and is limited by 40 CFR 60, Subpart Ja to 162 ppmv H_2S (3-hour rolling average) and 60 ppmv H_2S (365-day rolling average).]

(Ref.: 11 Miss. Admin. Code R. 2.2.B(10)., as established in the federally enforceable State Permit to Operate issued July 12, 1994, and modified February 14, 1995, and the Title V Operating Permit issued September 29, 1999)

3.B.4 For the duct burners associated with Emission Points AA-003 and AA-004, the permittee is 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) and the General Provisions (40 CFR 60, Subpart A).

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

3.B.5 For Emission Points AA-003 and AA-004, the permittee shall only burn natural gas or refinery fuel gas in the duct burners with a potential SO_2 emission rate of 0.32 lb/MMBtu heat input or less. Since the duct burners fire only gaseous fuels with a potential SO_2 emission rate of 0.32 lb/MMBtu heat input or less, the permittee is exempt from the SO_2 emission limit in 40 CFR 60.42b(k)(1).

(Ref.: 40 CFR 60.42b(k)(2), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the federally enforceable Permit to Construct issued May 15, 2019)

3.B.6 For Emission Points AA-003 and AA-004, the permittee shall not discharge into the atmosphere any gases that contain NO_x (expressed as NO_2) in excess of 0.20 lb/MMBtu from the duct burners associated with Emission Points AA-003 and AA-004. This limit applies at all times, including during periods of startup, shutdown, and malfunction.

(Ref.: 40 CFR 60.44b(l)(1) and 60.46b(a), Subpart Db)

3.B.7 For the duct burners associated with Emission Points AA-003 and AA-004, the maximum discharge of sulfur oxides shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input.

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

3.B.8 For Emission Point AA-005, the permittee shall not exceed the following emission limitations:

(a) PM/PM_{10} (filterable only): 13.0 lb/hr and 56.9 TPY

(b) NO_x: 15 ppmvd @ 15% O_2, not to exceed 60.0 lb/hr and 262.8 TPY

(c) CO: 19.0 lb/hr and 83.2 TPY

(d) VOC: 3.0 lb/hr and 13.1 TPY

(e) Opacity: ≤ 20%

This unit is permitted to operate at relative full load only (relative full load is defined as 87-100% of the unit's rated capacity, as based on ambient conditions). The NO_x emission limit of 15 ppmvd at 15% O_2 during relative full load will be monitored using the monitoring methods outlined in Condition 5.B.7 of the permit.

The permittee shall comply with the short-term emission limitations above (i.e., lb/hr) at all times except during periods of startup and shutdown. The permittee shall comply with the long-term emission limitations (i.e., TPY) at all times, including during periods of startup and shutdown.

(Ref.: 11 Miss. Admin. Code R. 2.2.B(10)., as established in the Permit to Construct issued March 23, 1995, and modified January 9, 1996, and the Title V Operating Permit issued September 29, 1999)

3.B.9 For Emission Point AA-005, the permittee is subject to and shall comply with all applicable requirements of the Standards of Performance for Stationary Gas Turbines (40 CFR 60, Subpart GG) and the General Provisions (40 CFR 60, Subpart A).

(Ref.: 40 CFR 60.330, Subpart GG)

3.B.10 For Emission Point AA-005, the permittee shall discharge into the atmosphere any gases which contain nitrogen oxides in excess of:

$$STD = 0.0075((14.4)/Y) + F$$

where:

STD = allowable ISO corrected (if required as given in 40 CFR 60.335(b)(1)) NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis).

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NO_x emission allowance for fuel-bound nitrogen as defined in 40 CFR 60.332(a)(4).

(Ref.: 40 CFR 60.332(a)(1) and (b), Subpart GG)

3.B.11 For Emission Point AA-005, the permittee shall combust only natural gas with a sulfur content not to exceed 0.8 percent by weight (8,000 ppmw).

(Ref.: 40 CFR 60.333(b), Subpart GG)

3.B.12 Emission Point AA-005 is subject to the applicable Acid Rain Program Provisions as specified in 40 CFR 72-78 and Section 8.0 of this permit. The permittee shall comply with the Acid Rain Permit incorporated in this Title V Operating Permit as Appendix C.

(Ref.: 40 CFR 72-78, Acid Rain Program Provisions)

3.B.13 For Emission Point AA-005, the permittee is subject to the applicable requirements of the Cross State Air Pollution Rule (CSAPR) NO_x Ozone Season Group 2 Trading Program, 40 CFR 97, Subpart EEEEE and shall comply with the applicable provisions in Section 9.0 of this permit.

(Ref.: 40 CFR 97.804, Subpart EEEEE)

3.B.14 For Emission Points AA-012, AA-013, AA-015, and AA-016, the maximum permissible emission of ash and/or particulate matter 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.15 For Emission Points AA-012, AA-013, AA-015, and AA-106, the permittee is subject to and shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) (40 CFR 63, Subpart ZZZZ) and the applicable General Provisions (40 CFR 63, Subpart A), as required by Table 8 to Subpart ZZZZ.

Emission Points AA-012 and AA-013 are existing black-start compression ignition (CI) RICE with a site rating of 300 brake HP (each) located at an area source of HAP emissions. Emission Points AA-015 and AA-016 are considered new, emergency, compression ignition (CI) stationary RICE located at an area source of HAP emissions. For Emission Points AA-015 and AA-016, 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, 40 CFR 60, Subpart IIII.

(Ref.: 40 CFR 63.6585, 63.6590(a), 63.6590(c)(1), 63.6665, and Table 8, Subpart ZZZZ)

3.B.16 For Emission Points AA-015 and AA-016, the permittee is subject to and shall comply with all applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII) and with the General Provisions (40 CFR 60, Subpart A), as required by Table 8 to Subpart IIII.

(Ref.: 40 CFR 60.4200(a)(2)(i), 60.4218(a), and Table 8, Subpart IIII)

3.B.17 For Emission Points AA-015 and AA-016, the permittee shall operate and maintain the emergency engine to achieve the following emission standards found in 40 CFR part 1039, Appendix I, and 40 CFR 1039.105 over the entire life of the engine.

(a) For Emission Point AA-015, the engine shall meet the following standards:

(1) NOx + NMHC ≤ 4.0 g/kW-hr,

(2) CO ≤ 3.5 g/kW-hr,

(3) PM (filterable) ≤ 0.2 g/kW-hr, and

(4) Opacity ≤ 20 percent during the acceleration mode, ≤ 15 percent during the lugging mode, ≤ 50 percent during the peaks in either the acceleration or lugging modes.

(b) For Emission Point AA-016, the engine shall meet the following standards:

(1) NOx + NMHC ≤ 4.7 g/kW-hr,

(2) CO ≤ 5.0 g/kW-hr,

(3) PM (filterable) ≤ 0.4 g/kW-hr, and

(4) Opacity ≤ 20 percent during the acceleration mode, ≤ 15 percent during the lugging mode, ≤ 50 percent during the peaks in either the acceleration or lugging modes.

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

3.B.18 For Emission Points AA-015 and AA-016, the permittee must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel as specified below:

(a) Maximum sulfur content of 15 ppm, and

(b) Minimum cetane index of 40 or maximum aromatic content of 35 volume percent

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

3.B.19 For Emission Points AA-015 and AA-016, the permittee shall comply with the applicable emission standards contained in Condition 3.B.17 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.20 Emission Points AA-015 and AA-016 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 for 50 hours per year as described in (c) below. If the permittee does not operate the engines according to the requirements in (a)-(c) below, the engines will not be considered emergency engines under Subpart IIII and must then 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 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 permittee maintains records indicating the federal, state, or local standards require maintenance testing of the engines 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 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), Subpart IIII)

C. Insignificant and Trivial Activity Emission Limitations & Standards

There are no requirements applicable to the insignificant activities listed in the source's Title V permit application.

D. Work Practice Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-012 AA-013	40 CFR 63.6605, Subpart ZZZZ	3.D.1	Operation & Maintenance	General compliance requirements and good air pollution control standards
	40 CFR 63.6603(a) and Table 2d(4), Subpart ZZZZ	3.D.2	Maintenance	Change oil and inspect air cleaner, hoses, and belts
	40 CFR 63.6625(e)(3), 63.6640(a), and Table 6.9.a, Subpart ZZZZ	3.D.3	Maintenance	Maintain engine according to manufacturer's instructions or develop site-specific maintenance plan
	40 CFR 63.6625(h), Subpart ZZZZ	3.D.4	Idle time	Minimize time spent at idle
	40 CFR 63.6625(i), Subpart ZZZZ	3.D.5	Maintenance	Oil analysis program

3.D.1 For Emission Points AA-012 and AA-013, the permittee shall be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR 63, Subpart ZZZZ, at all times. At all times the permittee must operate and maintain the 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. The general duty to minimize emissions does not require the permittee 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 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 63.6605, Subpart ZZZZ)

3.D.2 For Emission Points AA-012 and AA-013, the permittee shall comply with the following, except during periods of startup:

(a) Change oil and filter every 500 hours of operation or within one year plus 30 days of the previous change, whichever comes first;

(b) Inspect air cleaner every 1,000 hours of operation or within one year plus 30 days of the previous inspection, whichever comes first, and replace as necessary; and

(c) Inspect all hoses and belts every 500 hours of operation or within one year plus 30 days of the previous inspection, whichever comes first, and replace as necessary.

(Ref.: 40 CFR 63.6603(a) and Table 2d(4), Subpart ZZZZ)

3.D.3 For Emission Points AA-012 and AA-013, the permittee must operate and maintain the stationary RICE 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 practice for minimizing emissions.

(Ref.: 40 CFR 63.6625(e)(3), 63.6640(a), and Table 6.9.a, Subpart ZZZZ)

3.D.4 For Emission Points AA-012 and AA-013, the permittee shall minimize the engine’s time spent at idle during startup and minimize the 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(h), Subpart ZZZZ)

3.D.5 For Emission Points AA-012 and AA-013, the permittee has the option of utilizing an oil analysis program, as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Condition 3.D.2.

(Ref.: 40 CFR 63.6625(i), Subpart ZZZZ)

SECTION 4. COMPLIANCE SCHEDULE

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

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

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

(b) the compliance status;

(c) whether compliance was continuous or intermittent;

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

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

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

SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

A. General Monitoring, Recordkeeping and Reporting Requirements

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

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

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

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

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

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

(d) the analytical techniques or methods used;

(e) the results of such analyses; and

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

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

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

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

5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31 and January 31 for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with 11 Miss. Admin. Code Pt. 2, R. 6.2.E. For applicable periodic reporting requirements in 40 CFR Parts 60, 61, and 63, the permittee shall comply with the deadlines in this condition for reporting conducted on a semiannual basis. Additionally, any required quarterly reports shall be submitted by the end of the month following each calendar quarter (i.e., April

30th, July 31st, October 31st, and January 31st), and any required annual reports shall be submitted by January 31st following each calendar year.

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

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

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

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

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

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

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

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

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

B. Specific Monitoring and Recordkeeping Requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-001 AA-002 AA-003 AA-004 AA-005 AA-012 AA-013 AA-015	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.1	Fuel usage	Record quantity, heating value, and sulfur content of each type of fuel used
AA-003 AA-004	40 CFR 60.45b(j) and (k), 60.47b(f), and 60.49b(r), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.2	Fuel sulfur content	Maintain records of sulfur content determined by fuel receipts or fuel analysis plan
	40 CFR 60.46b(c) and 60.46b(f)(1), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)	5.B.3	NO_x	Biennial performance testing
	40 CFR 60.49b(d)(2), Subpart Db	5.B.4	Fuel usage	Record monthly fuel usage
AA-005	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.5	Startups/ Shutdowns	Record date, time, and duration of each startup and shutdown
	40 CFR 60.334(h)(3) and (4), Subpart GG	5.B.6	Fuel sulfur content	Demonstrate fuel meets the definition of natural gas
	40 CFR 60.334(c), Subpart GG	5.B.7	NO_x	Install, certify, maintain, operate, and quality-assure a NO_x CEMS and O_2 or CO_2 monitor
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.8	NO_x, CO_2	Record NO_x and CO_2 concentrations when CO_2 falls below 2.5% by volume
		5.B.9	NO_x	Annual performance testing
		5.B.10	PM/PM_{10}, CO, VOC	Biennial performance testing
AA-012 AA-013	40 CFR 63.6655(e)(3) and 63.6660, Subpart ZZZZ	5.B.11	Maintenance records	Keep records of all required maintenance
AA-015 AA-016	40 CFR 60.4209(a) and 60.4214(b), Subpart IIII	5.B.12	Hours of operation	Maintain records of hours of operation and reason for operation

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-015 AA-016	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.13	Fuel	Records that diesel meets nonroad specifications in 40 CFR 1090.305

5.B.1 For Emission Points AA-001 through AA-005, AA-012, AA-013, and AA-015, the permittee shall monitor the monthly usage of each type of fuel combusted, including the quantity, heating value, and sulfur content of the fuel, as determined by any applicable fuel analysis plans or other requirements specified herein.

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

5.B.2 For Emission Points AA-003 and AA-004, the permittee shall obtain and maintain at the facility the following fuel records:

(a) For natural gas, the permittee shall obtain and maintain fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b and the applicable sulfur limit.

(b) For refinery fuel gas (RFG), the permittee shall maintain the site-specific fuel analysis plan included as Appendix E. The fuel analysis plan shall include, at a minimum, an initial requirement of weekly testing, the potential sulfur rate of the fuel mixture in heat input (ng/J or lb/MMBtu), and the method used to determine the potential sulfur emissions rate of the RFG.

(c) The permittee may elect to develop a fuel analysis plan for natural gas as defined in 40 CFR 60.41b instead of complying with paragraph (a).

(Ref.: 40 CFR 60.45b(j) and (k), 60.47b(f), and 60.49b(r), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.3 For Emission Points AA-003 and AA-004, the permittee shall demonstrate compliance with the NO_x limit in Condition 3.B.6 for the duct burners by conducting performance testing biennially, not to exceed 25 months from the previous test. The performance tests shall be conducted in accordance with paragraphs (a) through (d) below:

(a) The emissions rate (E) of NO_x shall be computed using Equation 1 in 40 CFR 60.46b(f)(1).

(b) Method 7E of Appendix A of 40 CFR Part 60 or Method 320 of Appendix A of 40 CFR Part 63 shall be used to determine the NO_x concentrations. Method 3A or 3B of Appendix A of 40 CFR Part 60 shall be used to determine O_2 concentration.

(c) The permittee shall identify and demonstrate to the DEQ's satisfaction suitable methods to determine the average hourly heat input rate to the combustion turbine and the average hourly heat input rate to the affected duct burner.

(d) Compliance with the emissions limit in Condition 3.B.6 is determined by the three-run average (nominal 1-hour runs) for the initial and subsequent performance tests.

(Ref.: 40 CFR 60.46b(c) and 60.46b(f)(1), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.4 For Emission Point AA-003 and AA-004, the permittee shall record and maintain records of the amount of each fuel combusted during each calendar month.

(Ref.: 40 CFR 60.49b(d)(2), Subpart Db)

5.B.5 For Emission Point AA-005, the permittee shall keep a record of the duration of all startups and shutdowns. Such records shall include the date, time, and duration of each startup and shutdown.

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

5.B.6 For Emission Point AA-005, the permittee shall demonstrate that the gaseous fuel combusted in the turbine meets the definition of natural gas in 40 CFR 60.331(u). The permittee shall use one of the following sources of information to make the required demonstration:

(a) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

(b) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR Part 75 is required.

(c) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the permittee may, without submitting a special petition to the EPA, continue monitoring on this schedule. The Custom Fuel Monitoring Plan is provided in Appendix D of this permit.

(Ref.: 40 CFR 60.334(h)(3) and (4), Subpart GG)

5.B.7 For Emission Point AA-005, the permittee shall install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NO_x and

O_2 monitors. As an alternative, a CO_2 monitor may be used to adjust the measured NO_x concentrations to 15 percent O_2 by either converting the CO_2 hourly averages to equivalent O_2 concentrations using Equation F-14a or F-14b in Appendix F to Part 75 of this chapter and making the adjustments to 15 percent O_2, or by using the CO_2 readings directly to make the adjustments, as described in Method 20. The CEMS shall be installed, certified, maintained and operated as follows:

(a) Each CEMS must be installed and certified according to PS 2 and 3 (for diluent) of 40 CFR Part 60, Appendix B, except the 7-day calibration drift is based on unit operating days, not calendar days. Appendix F, Procedure 1 is not required. The relative accuracy test audit (RATA) of the NO_x and diluent monitors may be performed individually or on a combined basis, i.e., the relative accuracy tests of the CEMS may be performed either:

(1) On a ppm basis (for NO_x) and a percent O_2 basis for oxygen; or

(2) On a ppm at 15 percent O_2 basis; or

(3) On a ppm basis (for NO_x) and a percent CO_2 basis (for a CO_2 monitor that uses the procedures in Method 20 to correct the NO_x data to 15 percent O_2).

(b) As specified in 40 CFR 60.13(e)(2), during each full unit operating hour, each monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required to validate the hour.

(c) For purposes of identifying excess emissions, CEMS data must be reduced to hourly averages as specified in 40 CFR 60.13(h).

(1) For each unit operating hour in which a valid hourly average, as described in paragraph (b), is obtained for both NO_x and diluent, the data acquisition and handling system must calculate and record the hourly NO_x emissions in the units of percent NO_x by volume, dry basis, corrected to 15 percent O_2 and International Organization for Standardization (ISO) standard conditions. For any hour in which the hourly average O_2 concentration exceeds 19.0 percent O_2, a diluent cap value of 19.0 percent O_2 may be used in the emission calculations.

(2) A worst-case ISO correction factor may be calculated and applied using historical ambient data. For the purpose of this calculation, substitute the maximum humidity of ambient air (H_o), minimum ambient temperature (T_a),

and minimum combustor inlet absolute pressure (P_o) into the ISO correction equation.

(3) If the owner or operator has installed a NO_x CEMS to meet the requirements of 40 CFR Part 75 of this chapter, and is continuing to meet the ongoing requirements of 40 CFR Part 75, the CEMS may be used to meet the requirements of this section, except that the missing data substitution methodology provided for at 40 CFR part 75, Subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in 40 CFR 60.7(c).

(Ref.: 40 CFR 60.334(c), Subpart GG)

5.B.8 For Emission Point AA-005, the permittee shall demonstrate compliance with the NO_x emission limit in Condition 3.B.8(b) using a continuous NO_x and CO_2 monitor. The permittee shall record the date, time, and actual NO_x and CO_2 concentrations for all hours during which the CO_2 concentration falls below 2.5% by volume. These records shall provide the total number of hours during the semiannual period that the CO_2 concentration fell below 2.5% by volume. Emission Point AA-005 is considered in compliance with the noted NO_x limit based on prior testing demonstrating compliance with the NO_x limit when CO_2 levels are at or above 2.5% by volume.

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

5.B.9 For Emission Point AA-005, the permittee shall conduct annual performance testing, to demonstrate compliance with the lb/hr NO_x emission limit in Condition 3.B.8(b). Performance testing shall be conducted using EPA Test Method 20 (Appendix A to 40 CFR Part 60), or other EPA-approved test method. Testing shall be conducted under normal operating conditions while the turbine is operating at or near capacity. Annual performance tests shall be conducted within 13 months of the previous test.

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

5.B.10 For Emission Point AA-005, the permittee shall conduct biennial performance testing to demonstrate compliance with the PM/PM_{10} (filterable), CO, and VOC emission limits in Condition 3.B.8. Performance testing shall be conducted using EPA Test Methods 1-5 for PM/PM_{10}, Method 10 for CO, and Method 25 for VOC, or other EPA-approved test methods. Testing shall be conducted under normal operating conditions while the turbine is operating at or near capacity. For each pollutant, biennial performance tests shall be conducted within 25 months of the previous test. If using Method 5 to demonstrate compliance with the PM/PM_{10} emission limit, the permittee shall assume all measured filterable PM is equivalent to PM_{10}.

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

5.B.11 For Emission Points AA-012 and AA-013, the permittee shall keep records of all required maintenance performed on the stationary RICE in order to demonstrate that the permittee has operated and maintained the stationary RICE and after-treatment control device (if any) according to the permittee's own maintenance plan. Maintenance records must be in a form suitable and readily available for expeditious review and must be maintained for five years following the date of the record in hard copy or electronic form.

(Ref.: 40 CFR 63.6655(e)(3) and 63.6660, Subpart ZZZZ)

5.B.12 For Emission Points AA-015 and AA-016, the permittee shall install a non-resettable hour meter on the engines (if not already installed). The permittee shall keep records of the hours of operation of the engines that are recorded through the hour meter. The records shall indicate 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 60.4209(a) and 60.4214(b), Subpart IIII)

5.B.13 For Emission Points AA-015 and AA-016, the permittee shall maintain records documenting the diesel fuel meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel.

(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-001 AA-002 AA-003 AA-004 AA-005 AA-012 AA-013 AA-015	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.1	Fuel usage	Submit semiannual records of monthly usage, heating value, and sulfur content for each fuel
AA-003 AA-004 AA-005	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.2	NO_x	Performance testing notifications and reports
AA-003 AA-004	40 CFR 60.49b(r), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.3	Fuel sulfur content	Certify natural gas or RFG were combusted and provide potential sulfur emissions of RFG
AA-005	40 CFR 60.7(c) and (d), Subpart A	5.C.4	Excess emissions and CEMS reports	Submit semiannual excess emissions and monitoring systems performance reports
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.5	NO_x, CO_2	Submit summary of NO_x and CO_2 concentrations and hours below 2.5%
		5.C.6	Startup, shutdown, upset	Submit summary report of each startup, shutdown, and upset
AA-015 AA-016	Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).	5.C.7	Hours of operation	Annual report summarizing hours of operation in emergency and non-emergency use

5.C.1 For Emission Points AA-001 through AA-005 and AA-012, AA-013 and AA-015, the permittee shall submit fuel usage reports semiannually in accordance with Condition 5.A.4. This report should include the type, quantity, heating value, and sulfur content of all fuels burned, as determined in accordance with the requirements in Condition 5.B.1.

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

5.C.2 For Emission Points AA-003, AA-004, and AA-005, the permittee shall submit the following notifications and/or reports in regards to performance testing:

(a) 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. After the first successful submittal of a written test protocol in conjunction with a compliance test, the permittee may request that the resubmittal of the testing protocol be waived for subsequent testing by certifying in writing at least thirty (30) days prior to

subsequent testing that all conditions for testing remain unchanged such that the original protocol can and will be followed.

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

(c) The results from each performance test shall be submitted to the DEQ within sixty (60) days following the completion of the test(s).

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

5.C.3 For Emission Points AA-003 and AA-004, the permittee shall include the following information in the semiannual reports sent in accordance with Condition 5.A.4:

(a) A certification that only natural gas and/or RFG were combusted during the reporting period.

(b) A report of the potential sulfur rate of the RFG in heat input (ng/J or lb/MMBtu) as determined according to the fuel analysis plan included as Appendix E.

(Ref.: 40 CFR 60.49b(r), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c).)

5.C.4 For Emission Point AA-005, the permittee shall submit a report of excess emissions, as defined in Condition 5.B.7(c), and a monitoring systems performance report or summary report form semiannually, according to Condition 5.A.4.

(a) Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(b) If the total duration of excess emissions for the reporting period is less than one (1) percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five (5) percent of the total operating time for the reporting period, the permittee shall submit only the summary report form in Figure 1 of 40 CFR 60.7, and the excess emission report described in paragraph (a) need not be submitted unless requested by the DEQ.

(c) If the total duration of excess emissions for the reporting period is one (1) percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five (5) percent or greater of the total operating time for the reporting period, the permittee shall submit the summary report form in Figure 1 of 40 CFR 60.7 and the excess emission report described in paragraph (a).

(Ref.: 40 CFR 60.7(c) and (d), Subpart A)

5.C.5 For Emission Point AA-005, the permittee shall submit a semiannual report in accordance with Condition 5.A.4 of the information required by Condition 5.B.8, including the date, time and NO_x and CO_2 concentrations.

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

5.C.6 For Emission Point AA-005, the permittee shall submit a semiannual summary report in accordance with Condition 5.A.4 of each startup, shutdown, and upset, as defined in Condition 3.B.2.

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

5.C.7 For Emission Points AA-015 and AA-016, the permittee shall submit an annual report summarizing the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must 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. This report shall be submitted with the semiannual report due January 31st.

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

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.

SECTION 8. ACID RAIN REQUIREMENTS

The permittee shall comply with all requirements of the Phase II Acid Rain Permit attached as Appendix C of this permit. All conditions of the Phase II Acid Rain Permit are effective for the dates specified in the Acid Rain Permit; however, these conditions may be revised by the DEQ during the permitted period.

SECTION 9. CROSS-STATE AIR POLLUTION RULE

9.1 Description of Cross-State Air Pollution Rule (CSAPR) Monitoring Provisions

The CSAPR subject unit and the unit-specific monitoring provisions at this source are identified in the following Table. This unit is subject to the requirements for the CSAPR NOx Ozone Season Group 2 Trading Program.

Unit ID: Emission Point AA-005					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO_2 monitoring) and 40 CFR part 75, subpart H (for NO_X monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E
SO_2		X			
NO_X	X				
Heat Input		X			

9.2 The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.830 through 97.835. The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable CSAPR trading programs.

9.3 The permittee must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website at https://www.epa.gov/airmarkets/monitoring-plans-part-75-sources.

9.4 The permittee that wants to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.835. The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at https://www.epa.gov/airmarkets/part-75-petition-responses.

9.5 The permittee that wants to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.830 through 97.834 must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.835. The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on EPA website at https://www.epa.gov/airmarkets/part-75-petition-responses.

9.6 The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.830 through 97.834, and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B), may be used to add to or change this unit's monitoring system description.

9.7 CSAPR NOx Ozone Season Group 2 Trading Program Requirements (40 CFR 97.806)

(a) Designated representative requirements - The permittee shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.813 through 97.818.

(b) Emissions monitoring, reporting, and recordkeeping requirements.

(1) The permittee, and the designated representative, of each CSAPR NOx Ozone Season Group 2 source and each CSAPR NOx Ozone Season Group 2 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.830 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.831 (initial monitoring system certification and recertification procedures), 97.832 (monitoring system out-of-control periods), 97.833 (notifications concerning monitoring), 97.834 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.835 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

(2) The emissions data determined in accordance with 40 CFR 97.830 through 97.835 shall be used to calculate allocations of CSAPR NOx Ozone Season Group 2 allowances under 40 CFR 97.811(a)(2) and (b) and 97.812 and to determine compliance with the CSAPR NOx Ozone Season Group 2 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.830 through 97.835 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

(c) NOx emissions requirements.

(1) CSAPR NOx Ozone Season Group 2 emissions limitation.

(i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NOx Ozone Season Group 2 source and each CSAPR NOx Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, CSAPR NOx Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR 97.824(a) in an amount not less than the tons of total NOx emissions for such control period from all CSAPR NOx Ozone Season Group 2 units at the source.

(ii) If total NOx emissions during a control period in a given year from the CSAPR NOx Ozone Season Group 2 units at a CSAPR NOx Ozone Season Group 2 source are in excess of the CSAPR NOx Ozone Season Group 2 emissions limitation set forth in paragraph (c)(1)(i) above, then:

(A) The owners and operators of the source and each CSAPR NOx Ozone Season Group 2 unit at the source shall hold the CSAPR NOx Ozone Season Group 2 allowances required for deduction under 40 CFR 97.824(d); and

(B) The owners and operators of the source and each CSAPR NOx Ozone Season Group 2 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart EEEEE and the Clean Air Act.

(2) CSAPR NOx Ozone Season Group 2 assurance provisions.

(i) If total NOx emissions during a control period in a given year from all CSAPR NOx Ozone Season Group 2 units at CSAPR NOx Ozone Season Group 2 sources in the state (and Indian country within the borders of such state) exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NOx emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NOx Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR 97.825(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.825(b), of multiplying—

(A) The quotient of the amount by which the common designated representative's share of such NOx emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state (and Indian country within the borders of such state) for such control period, by which each common designated representative's share of such NOx emissions exceeds the respective common designated representative's assurance level; and

(B) The amount by which total NOx emissions from all CSAPR NOx Ozone Season Group 2 units at CSAPR NOx Ozone Season Group 2 sources in the state and Indian country within the borders of such state) for such control period exceed the state assurance level.

(ii) The permittee shall hold the CSAPR NOx Ozone Season Group 2 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.

(iii) Total NOx emissions from all CSAPR NOx Ozone Season Group 2 units at CSAPR NOx Ozone Season Group 2 sources in the state (and Indian country within the borders of such state) during a control period in a given year exceed the state assurance level if such total NOx emissions exceed the sum, for such control period, of the State NOx Ozone Season Group 2 trading budget under 40 CFR 97.810(a) and the state's variability limit under 40 CFR 97.810(b).

(iv) It shall not be a violation of 40 CFR part 97, subpart EEEEE or of the Clean Air Act if total NOx emissions from all CSAPR NOx Ozone Season Group 2 units at CSAPR NOx Ozone Season Group 2 sources in the state (and Indian country within the borders of such state) during a control period exceed the state assurance level or if a common designated representative's share of total NOx emissions from the CSAPR NOx Ozone Season Group 2 units at CSAPR NOx Ozone Season Group 2 sources in the state (and Indian country within the borders of such state) during a control period exceeds the common designated representative's assurance level.

(v) To the extent the permittee fails to hold CSAPR NOx Ozone Season Group 2 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,

(A) The permittee shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

(B) Each CSAPR NOx Ozone Season Group 2 allowance that the permittee fails to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart EEEEE and the Clean Air Act.

(3) Compliance periods.

(i) A CSAPR NOx Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2017, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.830(b) and for each control period thereafter.

(ii) A base CSAPR NOx Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.830(b) and for each control period thereafter.

(4) Vintage of allowances held for compliance.

(i) A CSAPR NOx Ozone Season Group 2 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a CSAPR NOx Ozone Season Group 2 allowance that was allocated for such control period or a control period in a prior year.

(ii) A CSAPR NOx Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a CSAPR NOx Ozone Season Group 2 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.

(5) Allowance Management System requirements. Each CSAPR NOx Ozone Season Group 2 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart EEEEE.

(6) Limited authorization. A CSAPR NOx Ozone Season Group 2 allowance is a limited authorization to emit one ton of NOx during the control period in one year. Such authorization is limited in its use and duration as follows:

(i) Such authorization shall only be used in accordance with the CSAPR NOx Ozone Season Group 2 Trading Program; and

(ii) Notwithstanding any other provision of 40 CFR part 97, subpart EEEEE, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

(7) Property right. A CSAPR NOx Ozone Season Group 2 allowance does not constitute a property right.

(d) Title V permit revision requirements.

(1) No Title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NOx Ozone Season Group 2 allowances in accordance with 40 CFR part 97, subpart EEEEE.

(2) This permit incorporates the CSAPR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.830 through 97.835, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of CSAPR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this Title V permit using once permit modification procedures in accordance with 40 CFR 97.806(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B).

(e) Additional recordkeeping and reporting requirements.

(1) Unless otherwise provided, the permittee of each CSAPR NOx Ozone Season Group 2 source and each CSAPR NOx Ozone Season Group 2 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

(i) The certificate of representation under 40 CFR 97.816 for the designated representative for the source and each CSAPR NOx Ozone Season Group 2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new

certificate of representation under 40 CFR 97.816 changing the designated representative.

(ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart EEEEE.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NOx Ozone Season Group 2 Trading Program.

(2) The designated representative of a CSAPR NOx Ozone Season Group 2 source and each CSAPR NOx Ozone Season Group 2 unit at the source shall make all submissions required under the CSAPR NOx Ozone Season Group 2 Trading Program, except as provided in 40 CFR 97.818. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a Title V Operating Permit program in 40 CFR parts 70 and 71.

(f) Liability.

(1) Any provision of the CSAPR NOx Ozone Season Group 2 Trading Program that applies to a CSAPR NOx Ozone Season Group 2 source or the designated representative of a CSAPR NOx Ozone Season Group 2 source shall also apply to the permittee of such source and of the CSAPR NOx Ozone Season Group 2 units at the source.

(2) Any provision of the CSAPR NOx Ozone Season Group 2 Trading Program that applies to a CSAPR NOx Ozone Season Group 2 unit or the designated representative of a CSAPR NOx Ozone Season Group 2 unit shall also apply to the permittee of such unit.

(g) Effect on other authorities - No provision of the CSAPR NOx Ozone Season Group 2 Trading Program or exemption under 40 CFR 97.805 shall be construed as exempting or excluding the permittee, and the designated representative, of a CSAPR NOx Ozone Season Group 2 source or CSAPR NOx Ozone Season Group 2 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

(h) Effect on units in Indian country. Notwithstanding the provisions of paragraphs (a) through (g) above, paragraphs (a) through (g) shall be deemed not to impose any requirements on any source or unit, or any owner, operator, or designated representative with regards to any source or unit, in Indian country within the borders of the state.

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
MMBtu	Million British Thermal Units
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61, or National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 CFR 63
NMVOC	Non-Methane Volatile Organic Compounds
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards, 40 CFR 60
O&M	Operation and Maintenance
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 μm in diameter
$PM_{2.5}$	Particulate Matter less than 2.5 μm in diameter
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction
TPY	Tons per Year
TRS	Total Reduced Sulfur
VEE	Visible Emissions Evaluation
VHAP	Volatile Hazardous Air Pollutant
VOHAP	Volatile Organic Hazardous Air Pollutant
VOC	Volatile Organic Compound

APPENDIX B

List of Regulations Referenced In this Permit

11 Miss. Admin. Code, Part 2, Ch. 1. – Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants (Amended May 24, 2018)

11 Miss. Admin. Code, Part 2, Ch. 2. – Permit Regulations for the Construction and/or Operation of Air Emissions Equipment (Amended February 22, 2024)

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 27, 2024)

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 GG, Standards of Performance for Stationary Gas Turbines

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

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

40 CFR 72-78, Acid Rain Program General Provisions

40 CFR 97, Cross State Air Pollution Rule (CSAPR)

APPENDIX C

PHASE II ACID RAIN PERMIT

PHASE II ACID RAIN PERMIT

Issued to: Chevron Cogenerating Plant
Operated by: Mississippi Power Company
ORIS code: 002047
Effective: *[Permit Issuance]* to *[Permit Expiration]*

Summary of Previous Actions:

This page will be replaced to document new actions each time a new action is taken by the DEQ. These are the permitting actions that have been undertaken:

1) Draft permit for public and EPA comment.	July 30, 2014
2) Draft permit for notice of public hearing.	February 26, 2015
3) Permit finalized and issued.	December 18, 2018

Present Action:

4) Draft permit for public and EPA comment.	

Signature Date

Becky Simonson
Chief, Environmental Permits Division
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, MS 39225-2261
Telephone: (601) 961-5171 Fax: (601) 961-5742

PHASE II ACID RAIN PERMIT

Issued to: Chevron Cogenerating Plant
Operated by: Mississippi Power Company
ORIS code: 57037
Effective: *[Permit Issuance]* to *[Permit Expiration]*

ACID RAIN PERMIT CONTENTS:

1) Statement of Basis.

2) SO_2 allowances allocated under this permit and NO_x requirements for each affected unit.

3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

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1) STATEMENT OF BASIS:

Statutory and Regulatory Authorities: In accordance with the Mississippi Air and Water Pollution Control Law, specifically Miss. Code Ann. §§ 49-17-1 through 49-17-43, and any subsequent amendments, and Titles IV and V of the Clean Air Act, the Mississippi Department of Environmental Quality issues this permit pursuant to the State of Mississippi Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act, 11 Miss. Admin. Code Pt. 2, Ch. 6, and the State of Mississippi Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act, 11 Miss. Admin. Code Pt. 2, Ch. 7.

2) SO_2 ALLOWANCE ALLOCATIONS AND NO_X REQUIREMENTS FOR EACH AFFECTED UNIT:

		2025	2026	2027	2028	2029
AA-005	**SO_2 allowances, under Table 2 of 40 CFR Part 73.**	NA	NA	NA	NA	NA
	NO_X limit	NA				

3) COMMENTS, NOTES AND JUSTIFICATIONS:

The affected unit is a natural gas-fired unit; therefore, the affected unit is not subject to the NO_x requirements outlined in 40 CFR Part 76. Additionally, the unit was not listed in 40 CFR 73, Tables 2, 3, or 4, and has not been allocated any SO_2 allowances.

4) PHASE II PERMIT APPLICATION:

Attached

APPENDIX D

UNIT 5 CUSTOM FUEL MONITORING PLAN

Custom Fuel Sampling and Analysis Plan for Chevron Unit 5

lntroduction

Chevron 5 is a combined cycle unit located at the Chevron refinery in Pascagoula, MS. The unit is owned and operated by Mississippi Power Company and is one of several power and steam generating facilities providing services to the refinery. The unit physically consists of an Asea Brown Boveri (ABB) stationary gas turbine exhausting into a waste heat recovery boiler. The gas turbine is directly coupled to an electrical generator with a nominal rating of 80 MWe. In addition, the waste heat recovery boiler produces process steam for the Chevron refinery. The boiler does not utilize auxiliary firing; the only source of heat for steam generation is the exhaust gas from the gas turbine.

Applicable Regulations

Chevron 5 is subject to the Federal New Source Performance Standards at 40 CFR Part 60, Subpart GG and, as such, must comply with the applicable emission limits and monitoring requirements. The unit is also subject to the requirements of the Continuous Emissions Monitoring provisions of the Acid Rain Program contained in 40 CFR Part 75. Since the unit uses "dry low NO_x" technology and only emits approximately 15 ppm NO_x, it meets the NO_x emission limitations of Subpart GG (nominally 75 ppm) by a wide margin. In addition, as required by 40 CFR Part 75, the unit is equipped with a continuous emissions monitor for the measurement of NO_x and CO_2 so that NO_x emissions can be reported in lb./10^6 Btu. Measurements of SO_2 emissions and heat input are done under the provisions of 40 CFR Part 75, Appendix D. In general, Appendix D uses measured fuel flow, gross calorific value and a conservative default SO_2 emissions factor to determine the unit heat input and SO_2 emissions because natural gas is the fuel. Appendix D of 40 CFR Part 75[1] contains a number of criteria related to gaseous fuel sulfur content, sampling procedures and analysis procedures. The custom fuel plan contained herein conforms to the requirements of 40 CFR Part 75.

Subpart GG

40 CFR Part 60, Subpart GG is an older regulation, having been promulgated almost 10 years ago. The NO_x control technology on modern gas turbines and the almost exclusive use of natural gas and No. 2 GT fuel oil have essentially made the regulation obsolete. At the time Subpart GG was promulgated, NO_x emissions from gas turbines were controlled by steam or water injection into the combustion zone. Typical emissions were 75-150 ppm NO_x. Modern gas turbines that bum natural gas do not typically use water or steam injection but use variations of "lean burn" technology for NO_x control. Emissions from these units range from 9 to 25 ppm NO_x when burning gaseous fuels.

[1] 40 CFR Part 75 was revised very recently (Fed Reg 28563, May 26, 1999) and many of the gaseous fuel criteria were extensively modified.

Consequently, the monitoring and reporting sections of Subpart GG have been made superfluous, especially in light of the 40 CFR Part 75 monitoring and reporting requirements.

Subpart GG has several monitoring provisions in §60.334. They are:

1. §60.334(a) - If water or steam injection is used, a fuel and water/steam flow measurement must be installed to monitor and record the fuel consumption and ratio of water to fuel being fired in the turbine.

2. §60.334(b) - To monitor sulfur and nitrogen content of the fuel being fired in the turbine. Fuel sampling and analysis frequency is specified as when the bulk storage tank is filled, or in the case where there is no storage tank, daily. This section of the regulation also provides for the owner/operator of the gas turbine facility to develop custom schedules for determining the fuel sulfur and nitrogen content of the fuel, "..... based on the design and operation of the affected facility and the characteristics of the fuel supply."

Obviously, the requirements in §60.334(a) are moot with respect to Chevron 5 because the unit does not use water or steam injection for NO_x: control. In addition, the intent of §60.334(a) is to insure that the owner operates the NO_x control equipment such that there is a reasonable assurance of continued NO_x compliance. This intent is clearly satisfied by the use of continuous emissions monitors on Chevron 5.

On the surface, the language in §60.334(b) appears to require daily fuel sampling and analysis, even for natural gas. The requirement seems to be nonsensical because natural gas does not contain any fuel-bound nitrogen and simply cannot contain enough sulfur to cause the SO_2 emission limits of Subpart GG (0.8 weight percent fuel sulfur content) to be violated. A review of the Environmental Protection Agency's Standards Support document for Subpart GG[2] clearly shows that these requirements were only intended to apply to oil; perhaps only non-premium oil (i.e., crude and residual oil).

It should be recalled that there was an unstable world-wide situation with respect to gas and oil supply when the Subpart GG regulation was being developed and the agency was very sensitive about restricting the fuels available to gas turbines. To allow for the combustion of some portion of the available heavy oil supply, the agency decided to allow a fuel bound nitrogen allowance and a fairly high fuel sulfur content. We quote from the support document. "As also discussed earlier, nearly all stationary gas turbines are currently firing natural gas or premium distillate fuel oil; although over the next five to ten years, some new gas turbines may fire heavy or residual fuel oil for either economic reasons or if a shortage in supply of premium fuel oils should develop. A fuel-bound nitrogen allowance to permit increased NO_x emissions has been selected to allow turbines to burn approximately 50 percent of currently available heavy fuels. To be consistent with the objective of the fuel-bound nitrogen allowance, the SO_2

[2] US Environmental Protection Agency, Office of Air Quality Planning and Standards. Standards Support and Environmental Impact Statement Volume I: Proposed Standards of Performance for Stationary Gas Turbines. EPA-450/2-77-017a, September 1977.

emission limit is selected as 150 ppm referenced to 15 percent O_2. This corresponds to a fuel sulfur content of approximately 0.8 percent by weight and would allow about 50 percent availability of heavy fuel oils."[3]

"Consequently, any owner or operator that uses the fuel-bound nitrogen allowance to comply with the NOx emission limit will be required by the standard to monitor the nitrogen of the fuel."[4]

All of this evidence points to a very reasonable regulatory approach by the Agency and we cannot imagine that the intent was to require daily fuel sampling and analysis for sulfur and fuel bound nitrogen when premium gaseous fuels are being fired.

Custom Fuel Plan for Chevron Unit 5

It is suggested that a custom fuel sampling and analysis plan be used that mirrors the requirements of Appendix D to 40 CFR Part 75. The recent revisions to Appendix D require a confirmation of gas quality with respect to sulfur content, use of conservative default values for SO_2 emissions and monthly sampling and analysis for heat content. Results are reported to EPA every quarter on an hourly basis in the Part 75 electronic data report.

In the case of Chevron Unit 5, the gas burned conforms to the regulatory requirements for natural gas (a maximum H_2S content of 1.0 gr./100 cf.). This has been confirmed by the gas pipeline tariffs as specified in 40 CFR Part 75. The sulfur content will still be approximately 150 times less than that allowed by 40 CFR Part 60, Subpart GG. Subpart GG allows for a fuel sulfur content of 0.8% by weight and this is equivalent to an H_2S content of approximately 300 gr/100 scf. It is suggested that this huge sulfur content compliance margin eliminates the need for sulfur content sampling and analysis based on the characteristics of the fuel. SO_2 emissions will be reported based on the 40 CFR Part 75, Appendix D default factor of 0.0026 lb. $SO_2/10^6$ Btu.

Therefore, a relatively simple custom fuel plan for Chevron 5 is proposed as follows:

- The applicability of the Natural Gas specification will be demonstrated as required by 40 CFR Part 75, Appendix D.
- No periodic sampling for fuel sulfur will be required because of the significant sulfur content compliance margin.
- Monthly sampling will be conducted for gross calorific value (GCV) as required by 40 CFR Part 75, Appendix D.
- SO_2 emissions will be reported as required by 40 CFR Part 75, Appendix D in the electronic format specified by the regulation.

[3] IBID, pages 8-34. 8-35
[4] IBID, page 8-36

APPENDIX E

UNIT 3 AND UNIT 4 HRSG FUEL ANALYSIS PLAN

Mississippi Power Company – Plant Chevron
Unit 3 and Unit 4 HRSG Fuel Analysis Plan

March
Submitted by:

Mississippi Power Company
10406 Lorraine Rd.
PO Box 4079
Gulfport, MS 39502

Submitted to:

Mississippi Department of Environmental Quality
Office of Pollution Control – Air Division
515 East Amite Street
Jackson, MS 39201

Table of Contents

1.0 INTRODUCTION

Chevron Cogenerating Plant (Chevron Cogen) is an existing Mississippi Power Company's (MPC) facility that produces electrical output and process steam utilized by Chevron Refinery. The Chevron Cogen operates under Title V Permit No. 1280-00048. Chevron Cogen consists of five combustion turbine generating units (Units 1 through 5) with heat recovery steam generators (HRSG). The HRSGs are boilers that utilize exhaust heat from the combustion turbines and heat from duct burners to produce process steam. This steam is provided to Chevron Refinery to utilize in Chevron Refinery's petrochemical refining processes. The combustion turbines are also coupled with electrical generators that produce electricity that is supplied to Chevron Refinery or to Mississippi Power Company's electrical grid.

On May 15, 2019, Mississippi Department of Environmental Quality (MDEQ) issued Chevron Cogen a Permit to Construct No. 1280-00048 for the restoration of the HRSGs associated with combined cycle generating units 3 and 4. The original HRSGs were permitted with 150 MMBtu/hr duct burners capable of burning either natural gas or refinery fuel gas (RFG) provided by Chevron Refinery. The restored HRSGs will include 122 MMBtu/hr duct burners. The restored HRSGs will continue to operate in the same manner as the original HRSGs, providing process steam as needed to Chevron Refinery.

This Fuel Analysis Plan describes how MPC Chevron Cogen will document, evaluate, and report the SO2 emission rate from the Chevron Cogen Unit 3 and Unit 4 Duct Burners, as required by Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (NSPS Subpart Db) and MDEQ Permit to Construct for the Unit 3 and Unit 4 HRSG Restoration Project.

2.0 NEW SOURCE PERFORMANCE STANDARDS

NSPS Subpart Db applies to SO2, NOx and PM emissions from each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBtu/hr. The Unit 3 and Unit 4 HRSGs would be restored after June 1984, and the heat input rate of each duct burner is greater than 100 MMBtu/hr. Therefore, the duct burners/HRSGs would become subject to the applicable emission limits in NSPS Db, after the restoration projects.

2.1 STANDARDS FOR SO2

40 CFR 60.42b(k)(2), states that units firing only very low sulfur oil, gaseous fuel, a mixture of these fuels, or a mixture of these fuels with any other fuels with a potential SO2 emission rate of 0.32 lb/MMBtu (140 ng/J) or less are exempt from the SO2 emissions limits in paragraph 40 CFR 60.42b(k)(1). The gaseous fuels (natural gas or RFG) fired in the duct burners would have a potential SO2 emission rate less than 0.32 lb/MMBtu; therefore, the units would be exempt from the SO2 emission limit in 40 CFR 60.42b(k)(1).

2.2 COMPLIANCE, MONITORING AND RECORDKEEPING

40 CFR 60.49b(r)(1-2) allows the owner or operator to demonstrate compliance by maintaining fuel receipts from the fuel supplier that certify that the gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b and the applicable sulfur limit, or by an approved site-specific fuel analysis plan. The definition of natural gas in 40 CFR 60.41b includes ‘A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot)’.

The RFG combusted in the HRSG duct burners is a hydrocarbon mixture that maintains a gaseous state at ISO condition with a gross calorific value between 910 and 1,150 BTU/dscf; therefore, the RFG should qualify as natural gas under NSPS Db. This Fuel Analysis Plan describes how Chevron Cogen will demonstrate that all fuel combusted in Unit 3 and Unit 4 meets the definition of gaseous fuel and has a potential SO2 emission rate less than 0.32 lb/MMBtu.

3.0 UNIT 3 AND UNIT 4 HRSG PERMIT TO CONSTRUCT REQUIREMENTS

3.1 EMISSION LIMITS (Conditions 3.7 and 3.8)

For Emission Points AA-003 and AA-004, upon certification of construction, units firing only very low sulfur oil, gaseous fuel, a mixture of these fuels, or a mixture of these fuels with any other fuels with a potential SO2 emission rate of 0.32 lb/MMBtu heat input or less are exempt from the SO2 emissions limit in 40 CFR 60.42b(k)(1).

(Ref.: 40 CFR 60.42b(k)(2), Subpart Db)

For Emission Points AA-003 and AA-004, upon certification of construction, the permittee shall only burn fuels in the Duct Burners with a potential SO2 emission rate of 0.32 lb/MMBTU heat input or less.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

3.2 MONITORING AND RECORDKEEPING REQUIREMENTS (Condition 5.2)

For Emission Points AA-003 and AA-004, upon certification of construction, the permittee shall comply with the following:

(a) For natural gas, the permittee shall obtain and maintain fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b and the applicable sulfur limit.

(b) For refinery fuel gas (RFG), the permittee shall develop a site-specific fuel analysis plan no later than 60 days before certification of construction. Each fuel analysis plan shall include at a minimum an initial requirement of weekly testing

(c) The permittee may elect to develop a fuel analysis plan for natural gas as defined in 40 CFR 60.41b instead of complying with (a).

(Ref.: 40 CFR 60.45b(j), 60.49b(r), and 60.47b(f), Subpart Db and 11 Miss. Admin. Code Pt. 2, 2.2.B(11).)

3.3 REPORTING REQUIREMENTS (Conditions 6.4 – 6.7)

For Emission Points AA-003 and AA-004, the permittee shall submit reports in accordance with Condition 6.7 certifying that only very low sulfur oil meeting this definition, natural gas, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period.

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

For Emission Points AA-003 and AA-004, if the permittee elects to demonstrate compliance based on a fuel analysis plan, the permittee shall submit the site-specific fuel analysis plan as described in Condition 5.2 to the MDEQ for review and approval no later than 60 days before the date intended to demonstrate compliance.

(Ref.: 40 CFR 6.49b(r)(2), Subpart Db)

For Emission Points AA-003 and AA-004, if the permittee elects to demonstrate compliance based on a fuel analysis plan as described in Condition 5.2, the permittee shall submit a fuel analysis report in accordance with Condition 6.7 which contains, at a minimum, the following information:

(1) The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;
(2) The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas, a fuel receipt or tariff sheet is acceptable;
(3) The ratio of different fuels in the mixture; and
(4) The permittee may petition the MDEQ to approve monthly or quarterly sampling in place of weekly sampling.

(Ref.: 40 CFR 60.49b(r)(2) and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)

For Emission Points AA-003 and AA-004, the reporting period for the reports required under 40 CFR 60, Subpart Db is each 6 month period. All reports shall be submitted to the MDEQ and shall be postmarked by the 30th day following the end of the reporting period (i.e., July 30th and January 30th).

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

4.0 FUEL MONITORING, RECORDKEEPING AND REPORTING

4.1 MONITORING AND RECORDKEEPING

Chevron Refinery provides Chevron Cogen with both the natural gas and RFG combusted in the Unit 3 and Unit 4 Duct Burners. The natural gas provided to Chevron Cogen is “pipeline quality natural gas” with a default SO2 emission rate of 0.0006 lb/MMBtu. This emission rate is far below the NSPS Subpart Db requirement of 0.32 lb/MMBtu. For natural gas, MPC will maintain natural gas fuel receipts which demonstrate that the natural gas burned in the Unit 3 and Unit 4 HRSGs meets the definition of “natural gas” defined in 40 CFR 60.41b.

Chevron Refinery provides RFG to the Chevron Cogen with a potential SO2 emission rate not to exceed 0.04 lb/MMBtu. The actual SO2 emission rates for calendar year 2019 (0.013 lb/MMBtu) was approximately 4% of the Subpart Db requirement of 0.32 lb/MMBtu. Chevron Refinery conducts RFG testing for sulfur (PPM) and heat content (BTU/SCF), at least weekly. MPC will maintain the following RFG data:

- sulfur content (PPM), sampled at least weekly
- heat content (BTU/SCF), sampled at least weekly
- SO2 emission rate (lb/MMBtu), sampled at least weekly

4.2 REPORTING

For the Unit 3 and Unit 4 HRSGs, MPC will submit semiannual reports with the following:

1. Statement certifying that only natural gas and other fuels known to contain insignificant amounts of sulfur were combusted in the Units 3 and Unit 4 HRSGs;

2. The methods used to determine the potential SO2 emission rates;

3. Monthly potential SO2 emission rates (lb/MMBtu) of the RFG and natural gas combusted in Unit 3 and Unit 4 HRSGs. According to NSPS Db, a 140 ng/J SO2 emission rate corresponds to a 0.32 lb/MMBtu SO2 emission rate. MPC proposes to submit SO2 emission rates in units of lb/MMBtu; and

4. The monthly amount of each fuel combusted.

Reports will be submitted (postmarked) by January 30th and July 30th of each year.