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, 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: December 18, 2018
Modified: June 29, 2022

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Krystal Rudolph
_____
AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: November 30, 2023 **Permit No.: 1280-00048**

12237 PER20210001

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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 air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

Emission Point	Description
AA-001	305.9 MMBtu/hr natural gas/refinery fuel gas fired GE Model L combustion turbine with heat recovery steam generator (HRSG).
AA-002	305.9 MMBtu/hr natural gas/refinery fuel gas fired GE Model L combustion turbine with heat recovery steam generator (HRSG).
AA-003	Nominal 305.9 MMBTU/hr Gas fired Combustion Turbine with Nominal 122 MMBtu/hr Refinery Gas/Natural Gas fired Duct Burner on Cogeneration Plant Unit 3
AA-004	Nominal 305.9 MMBTU/hr Gas fired Combustion Turbine with Nominal 122 MMBtu/hr Refinery Gas/Natural Gas fired Duct Burner on Cogeneration Plant Unit 4
AA-005	1084.6 MMBtu/hr natural gas fired ABB Model Number GT11N combustion turbine equipped with ABB dry low-NO_X combustor system and heat recovery steam generator (HRSG).
AA-007	Unit #5 lube oil storage tank (3,006 gallons) – Insignificant Activity.
AA-008	Unit #3 and Unit #4 lube oil storage tanks (1,700 gallons each) – Insignificant Activity.
AA-009	Unit #1 and Unit #2 lube oil storage tanks (1,700 gallons each) – Insignificant Activity.
AA-010	Units #1-4 new/used turbine oil storage tank (3,800 gallons) – Insignificant Activity.
AA-011	Unit #5 turbine oil storage tank (500 gallons) – Insignificant Activity.
AA-012	300 horsepower (0.7623 MMBTU/hr) Unit #3 diesel fired black start-up engine.
AA-013	300 horsepower (0.7623 MMBTU/hr) Unit #4 diesel fired black start-up engine.
AA-014	20 horsepower propane fired UPS backup generator engine.
AA-015	619 horsepower diesel fired backup generator for emergency control room.

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. Facility-Wide Emission Limitations & Standards

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

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

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

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

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

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

B. Emission Point Specific Emission Limitations & Standards

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-001 thru AA-005	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.B.1	SO_2	4.8 lbs/MMBTU
AA-001 and AA-002	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.2	PM/PM_{10}	$E=0.8808*I^{-0.1667}$ or 0.34 lb/MMBTU
AA-003 and AA-004	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.2	PM/PM_{10}	$E=0.8808*I^{-0.1667}$ or 0.32 lb/MMBTU
AA-005	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b).	3.B.2	PM/PM_{10}	$E=0.8808*I^{-0.1667}$ or 0.27 lb/MMBTU
AA-001 thru AA-004	Permit to Operate issued on July 12, 1994, and modified on February 14, 1995, and Title V Operating Permit) originally issued on September 29, 1999.	3.B.3	Fuel Restriction	Natural Gas or Refinery Fuel Gas (RFG) only
AA-005	Permit to Construct (PTC) issued on March 23, 1995, and modified on January 9, 1996, and TVOP originally issued on September 29, 1999.	3.B.4	PM/PM_{10} NO_X CO VOC Opacity	13.0 lb/hr and 56.9 TPY 60.0 lb/hr and 262.8 TPY, not to exceed 15 ppmvd @ 15% O_2 during relative full load operation 19.0 lb/hr and 83.2 TPY 3.0 lb/hr and 13.1 TPY ≤ 20%
AA-005	40 CFR 60, Subpart GG, 60.330(a)&(b), 60.332(a)(1)&(b), 60.333(b), and 60.334(h)(3)&(4))	3.B.5 3.B.6 3.B.7 3.B.8	NO_X SO_2 Fuel Restrictions	STD = 0.0075((14.4)/Y) + F Natural gas only with sulfur content ≤ 0.8% by weight (8,000 ppmw) Natural gas only with sulfur content ≤ 20.0 grains/100 scf Custom Fuel Monitoring Plan
AA-005	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2) and TVOP issued on March 17, 2009.	3.B.9	Startup/ Shutdown	Compliance with short-term emission limits is required, except during periods of startup and shutdown. Compliance with long-term emission limits is required even during periods of startup and shutdown.

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
AA-005	Acid Rain Regulations, 40 CFR 72-78	3.B.10	SO_2	See Phase II Acid Rain Permit (Appendix C)
AA-005	Cross State Air Pollution Rule (CSAPR), 40 CFR 97, Subpart EEEEE - CSAPR NOx Ozone Season Group 2 Trading Program	3.B.11	NO_X	CSAPR Requirements
AA-001 thru AA-005	TVOP originally issued September 29, 1999.	3.B.12	Periods of Startup and Shutdown	Startup - A startup occurs when a unit is taken from a non-fired to a fired state. Startup ends when ignitor fuel is discontinued (or operation at >60% load). Startup is limited to 1 hour or less. Shutdown - A shutdown occurs when a unit is taken from a fired to a non-fired state. Shutdown commences when ignitor fuel is required to stabilize the boiler flame until all fans are turned off (or combustion turbine reduces load to <60%). Shutdown is limited to 1 hour or less. Upset - An unexpected and unplanned condition of operation where equipment operates outside normal parameters.
AA-007 thru AA-011	Insignificant Activity (3.C)	N/A	N/A	N/A
AA-012 thru AA-015	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.B.13	PM/PM_{10}	0.6 lbs/MMBTU
AA-012 and AA-013	40 CFR 63, Subpart ZZZZ (63.6580, 63.6585(a)&(c), 63.6590(a)(1)(iii), 63.6595(a)(1)&(c), 63.6603 (a), 63.6605, 63.6625(e)(3),(h),& (i), 63.6640(a)&(b), Table 2d, and Table 6)	3.B.14	Management and O&M Practices	Operate and maintain RICE according to manufacturer's O&M instructions or other approved plan.
AA-012 and AA-013	40 CFR 63, Subpart ZZZZ (63.6580, 63.6585(a)&(c), 63.6590(a)(1)(iii), 63.6595(a)(1)&(c), 63.6603(a), 63.6605, 63.6625(e)(3),(h),&	3.B.15	Work Practice Standards	Change oil & filter Inspect air cleaner Inspect all hoses and belts

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
	(i), 63.6640(a)&(b), Table 2d, and Table 6)			
AA-014	40 CFR 63, Subpart ZZZZ (63.6580, 63.6585(a)&(c), 63.6590 (a)(2)(iii), and 63.6590(c)(1))	3.B.16	N/A	Meet the requirements of Subpart ZZZZ by meeting requirements of 40 CFR Part 60, Subpart JJJJ.
AA-014	40 CFR 60, Subpart JJJJ (60.4230(a(4)(iii))	3.B.17	N/A	Subpart JJJJ does not apply to SI ICE that commence construction after June 12, 2006 and that are manufactured before July 1, 2008.
AA-015	40 CFR 63, Subpart ZZZZ (63.6580, 63.6585(a) & (c), 63.6590(a)(2), and 63.6590(c)(1))	3.B.18	N/A	Meet the requirement of Subpart ZZZZ by meeting requirements of 40 CFR Part 60, Subpart IIII.
	40 CFR 60, Subpart IIII (60.4200(a)(2)(ii)	3.B.19	N/A	40 CFR 60, Subpart IIII Applicability
	40 CFR 60, Subpart IIII (60.4205(b), 60.4202(a)(2) & 40 CFR 89.112 Table 1)	3.B.20	NMHC+NOx	4.0 g/kW-hr
			PM	0.2 g/kW-hr
			CO	3.5 g/kW-hr
	40 CFR 60, Subpart IIII 60.4207(b), and 40 CFR 80.510(b)	3.B.21	Fuel Restriction	Maximum diesel sulfur content of 15 ppm Minimum cetane index of 40 or maximum aromatic content of 35% vol.
	40 CFR 60, Subpart IIII (40 CFR 60.4211(a))	3.B.22	Work Practices	Operate engine according to manufacturer's emission related instructions
	40 CFR 60, Subpart IIII (40 CFR 60.4211(f))	3.B.23	Operational Limit	50 hours/year (non-emergency) 100 hours/year (total)
AA-003 and AA-004 (Duct Burners only)	40 CFR 60, Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generation Units 40 CFR 60.40b(a)	3.B.24	SO_2 PM NOx	Applicability

Emission Point(s)	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
	40 CFR 60.42b(k)(2), Subpart Db	3.B.25	SO_2	Exemption
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Federally Enforceable Construction Permit issued May 15, 2019	3.B.26		Shall burn only fuels that have an SO_2 emission rate of 0.32 lb/MMBTU heat input or less
	40 CFR 60.44b(a)(4)(i), Subpart Db	3.B.27	NOx	0.20 lb/MMBTU (3-hour average)

3.B.1 For Emission Points AA-001 through AA-005, the permittee shall not discharge sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer in excess of 4.8 pounds (measured as sulfur dioxide SO_2) per million BTU heat input.

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

3.B.2 For Emission Points AA-001 through AA-004, and AA-005, the permittee shall not have particulate matter (PM) emissions from fossil fuel burning installations of greater than 10 million BTU per hour heat input that exceeds 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.3 For Emission Points AA-001 through AA-004, the permittee shall combust only natural gas or refinery fuel gas (RFG). RFG received from the Chevron facility is limited by 40 CFR 60, Subpart J to 160 ppmv H_2S, which would have a sulfur content less than 0.8% by weight and less than 4.8 pounds (measured as SO_2) per million BTU heat input.

(Ref.: Permit to Operate (PTO) issued July 12, 1994, and modified February 14, 1995, and Title V Operating Permit (TVOP) originally issued on September 29, 1999, and included herein)

3.B.4 For Emission Point AA-005, the permittee shall not exceed the emission limitations established in the Permit to Construct (PTC) issued on March 23, 1995, and modified on January 9, 1996, and in the TVOP originally issued September 29, 1999.

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 ppm at 15% O_2 during relative full load will be monitored using the monitoring methods outlined in Section 5.B of the permit.

(Ref.: PTC issued on March 23, 1995, and modified on January 9, 1996, and in the TVOP originally issued September 29, 1999, and included herein)

3.B.5 For Emission Point AA-005, the permittee is subject to and shall comply with the New Source Performance Standards (NSPS), Subpart GG - Standards of Performance for Stationary Gas Turbines. The provisions of this subpart are applicable to stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired, which commence construction, modification, or reconstruction after October 3, 1977.

(Ref.: 40 CFR 60.330(a) & (b).)

3.B.6 For Emission Point AA-005, the permittee shall not cause to be discharged into the atmosphere from any stationary gas turbine, 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 peak 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); and F = NO_X emission allowance for fuel-bound nitrogen as defined in 60.332(a)(4).

(Ref.: 40 CFR 60.332(a)(1) & (b).)

3.B.7 For Emission Point AA-005, the permittee shall combust only natural gas with a sulfur content not to exceed 0.8% by weight or 8,000 ppmw.

(Ref.: 40 CFR 60 Subpart GG, 60.333(b))

3.B.8 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 Part 75 is required.

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 Administrator, 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))

3.B.9 For Emission Point AA-005, the permittee shall comply with the short-term pounds per hour (lbs/hr) emission limitations specified, except during periods of startup and shutdown, and the permittee shall comply with the long-term tons per year (tons/yr) emissions even during periods of startup and shutdown. The permittee shall keep a record of the duration of all startups or shutdowns. Such records shall include the time and date of such startups and shutdowns.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). and TVOP issued on March 17, 2009)

3.B.10 For Emission Point AA-005, the permittee is subject to and shall comply with all applicable requirements of the Acid Rain Program Regulations as specified in 40 CFR Parts 72-78. The permittee shall comply with the Acid Rain Permit incorporated in this TVOP as Appendix C.

(Ref.: Acid Rain Regulations, 40 CFR Parts 72-78)

3.B.11 For Emission Point AA-005, the permittee is subject to the applicable requirements of the Cross State Air Pollution Rule (TR) as set forth in 40 CFR Part 97 Subpart EEEEE – CSAPR NOx Ozone Season Group 2 Trading Program. The permittee must ensure that the subject units have allocations equal to or greater than the emissions during the Ozone Season Group 2 period (May 1 – September 30).

(Ref.: 40 CFR Part 97, Subpart EEEEE)

3.B.12 For Emission Points AA-001 through AA-005, and 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.: TVOP originally issued September 29, 1999, and included herein)

3.B.13 For Emission Points AA-012 through AA-015, the permittee shall not have ash and/or PM emissions from fossil fuel burning installations of less than 10 million BTU per hour heat input in excess of 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.14 For Emission Points AA-012 and AA-013, the permittee is subject to and shall comply with 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) and the General Provisions in 40 CFR 63, Subpart A. These units are existing black start RICE with a site rating of 300 brake HP (each) located at an area source of HAP emissions, which is required to comply with the requirements in Table 2d and Table 6 of the subpart.

At all times the permittee must operate and maintain the affected unit, including associated air pollution control equipment and monitoring equipment, in accordance with manufacturer's operation and maintenance (O&M) instructions or develop a written maintenance plan that is consistent with safety and good air pollution control practices for minimizing emissions. The permittee must also 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, after which time the emission standards applicable to all times other than startup apply.

(Ref.: 40 CFR 63.6580, 63.6585(a) & (c), 63.6590(a)(1)(iii), 63.6595(a)(1) & (c), 63.6603 (a), 63.6605, 63.6625(e)(3), (h), & (i), 63.6640(a) & (b), Table 2d, and Table 6)

3.B.15 For Emission Points AA-012 and AA-013, the permittee must comply with the following requirements (from Table 2d of Subpart ZZZZ) for existing stationary RICE located at area sources of HAP emissions:

(a) Change oil & filter every 500 hours of operation or annually, whichever comes

first;

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

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

(Ref.: 40 CFR 63.6580, 6585(a)&(c), 6590(a)(1)(iii), 6595(a)(1)&(c), 6603(a), 6605, 6625(e)(3),(h),& (i), 6640(a)&(b), Table 2d, and Table 6)

3.B.16 For Emission Point AA-014, the permittee is subject to and shall comply with 40 CFR 63, Subpart ZZZZ - NESHAP for Stationary RICE. As a new spark ignition stationary RICE located at an area source (commenced construction after June 12, 2006), the permittee must meet the requirements of ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart JJJJ, and no further requirements under Subpart ZZZZ apply.

(Ref.: 40 CFR 63.6580, 63.6585(a)&(c), 63.6590(a)(2)(iii), and 63.6590(c)(1))

3.B.17 For Emission Point AA-014, the permittee is subject to and shall comply with 40 CFR 60, Subpart JJJJ – New Source Performance Standards (NSPS) for Stationary Spark Ignition (SI) Internal Combustion Engines (ICE). Although subject to Subpart JJJJ, the subpart does not apply to SI ICE less than 500 horsepower that commence construction after June 12, 2006 and that are manufactured before July 1, 2008. For the purposes of this subpart, the date that construction commences is the date the engine is ordered.

(Ref.: 40 CFR 60.4230(a)(4)(iii))

3.B.18 For Emission Point AA-015, the permittee is subject to and shall comply with 40 CFR 63, Subpart ZZZZ - NESHAP for Stationary RICE. As a new compression ignition stationary RICE located at an area source (commenced construction after June 12, 2006), the permittee must meet the requirements of ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart IIII, and no further requirements under Subpart ZZZZ apply.

(Ref.: 40 CFR 63.6580, 63.6585(a) & (c), 63.6590(a)(2), and 63.6590(c)(1))

3.B.19 For Emission Point AA-015, the permittee is subject to and shall comply with 40 CFR 60, Subpart IIII – New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines and the General Provisions (40 CFR 60, Subpart A).

(Ref.: 40 CFR 60.4200(a)(2)(ii))

3.B.20 For Emission Point AA-015 the permittee shall operate and maintain the emergency engine to achieve the following emission standards over the entire life of the engines.

(a) The permittee shall not discharge any gases containing a sum of non-methane

hydrocarbon and nitrogen oxides in excess of 4.0 grams/kilowatt-hour.

(b) The permittee shall not discharge any gases containing particulate matter in excess of 0.2 grams/kilowatt-hour.

(c) The permittee shall not discharge any gases containing carbon monoxide in excess of 3.5 grams/kilowatt-hour.

(Ref.: 40 CFR 60.4205(b), 60.4202(a)(2) and 40 CFR 89.112 Table 1)

3.B.21 For Emission Point AA-015, the permittee must purchase and fire diesel fuel that meets the following requirements

(a) Maximum sulfur content of 15 ppm

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

(Ref.: 40 CFR 60.4207(b), and 40 CFR 80.510(b)

3.B.22 For Emission Point AA-015, the permittee must follow the work practices listed below.

(a) Operate and maintain the engine and any associated control devices according to the manufacturer's emission–related written instructions;

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

(c) Meet the applicable requirements of 40 CFR, Parts 89, 94, and/or 1068

(Ref.: 40 CFR 60.4211(a))

3.B.23 The permittee shall operate the emergency stationary RICE according to the following requirements. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per calendar year is prohibited. If the engine is not operated according to these requirements, the engine will not be considered an emergency engine under this subpart and shall meet all requirements for non-emergency engines.

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

(b) The permittee may operate the emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness

testing of such units is limited to a maximum of 100 hours per calendar year. The permittee may petition the Administrator 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 that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(c) The permittee may operate the emergency stationary RICE up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year for maintenance and testing. 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 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))

3.B.24 For Emission Points AA-003 and AA-004, the permittee is subject to and shall comply with all applicable requirements of Standards of Performance for Industrial – Commercial-Institutional Steam Generation 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.25 For Emission Points AA-003 and AA-004, 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 SO_2 emission rate of 0.32 lb/MMBtu heat input or less are exempt from the SO_2 emissions limit in 40 CFR 60.42b(k)(1).

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

3.B.26 For Emission Points AA-003 and AA-004, the permittee shall only burn fuels in the Duct Burners with a potential SO_2 emission rate of 0.32 lb/MMBTU heat input or less.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)., as established in the Federally Enforceable Construction Permit issued May 15, 2019)

3.B.27 For Emission Points AA-003 and AA-004, the permittee shall not cause to be discharged into the atmosphere any gases that contain NOx (expressed as NO_2) in excess of 0.20 lb/MMBTU from the HRSGs associated with Emission Points AA-003 and AA-004.

(Ref.: 40 CFR 60.44b(a)(4)(i), Subpart Db)

C. Insignificant and Trivial Activity Emission Limitations & Standards

Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limit/Standard
11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.C.1	PM	0.6 lbs/MMBTU
11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.C.2	SO_2	4.8 lbs/MMBTU
11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).	3.C.3	PM/PM_{10}	$E=4.1(p)^{0.67}$

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

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

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

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

3.C.3 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission from any manufacturing process, in any one hour from any point source, particulate matter in total quantities in excess of the amount determined by the relationship:

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

Where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hour. If the process weight input rate (p) changes, the emissions rate (E) will change accordingly.

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

SECTION 4. COMPLIANCE SCHEDULE

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

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

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

(b) the compliance status;

(c) whether compliance was continuous or intermittent;

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

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

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

4.3 For each calendar year that an affected unit is subject to the Acid Rain Program, the permittee shall submit an annual compliance certification report to the Administrator within 60 days after the end of the calendar year. The contents of the report shall be in accordance with 40 CFR Part 72.90(b).

SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

A. General Monitoring, Recordkeeping and Reporting Requirements

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

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

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

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

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

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

(d) the analytical techniques or methods used;

(e) the results of such analyses; and

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

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

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

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

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

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

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

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

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

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

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 3.6.A(3).)

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

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

B. Specific Monitoring and Recordkeeping Requirements

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-001 thru AA-005 and AA-012 thru AA-015	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.1	Fuels	Monitor and record fuel type, quantity, and quality monthly.
AA-005	40 CFR 60, Subpart GG, 60.334(h)	5.B.2	Sulfur Content	Monitor sulfur content of fuel.
AA-005	40 CFR Part 75 and 40 CFR 75.10(a)(2), 75.57(b) and 75.57(d)	5.B.3 5.B.4 5.B.5	NO_X, CO_2 concentration (for NO_X)	Maintain CEMS and monitor emissions .
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).	5.B.6	NOx, O_2	Performance Emissions Testing
	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).	5.B.7	PM/PM_{10},CO, VOC	Performance Emission Testing
AA-005	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.8	Startup/ Shutdown	Monitor and maintain startups and shutdowns and times when continuous monitoring system is inoperative.

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant/ Parameter Monitored	Monitoring/Recordkeeping Requirement
AA-012 and AA-013	NESHAP, 40 CFR 63, Subpart ZZZZ (63. 6640(a)&(b), 63.6650, and Table 2d)	5.B.9	Startup Time Fuel	Minimize startup (and idle) time. Monitor, record and maintain records of the fuel sulfur content.
AA-015	40 CFR 60.4211(c) and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.10	NMHC+NOx, PM and CO	Install a certified engine
	40 CFR 60.4211(a)and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.11	NMHC+NOx, PM and CO	Recordkeeping – Operation and Maintenance
AA-015	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).	5.B.12	NMHC+NOx, PM and CO	Recordkeeping – Hours of Operation
	40 CFR 60.4207(b) and 11 Miss. Admin. Code Pt. 2, R.6.3.A(3)(a)(2).	5.B.13	NMHC+NOx, PM and CO	Recordkeeping – Fuel Specification
AA-003 and AA-004 (Duct Burners only)	40 CFR 60.45b(j), 60.49b(r), and 40 CFR 47b(f), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)., as established in the Federally Enforceable Construction Permit issued May 15, 2019	5.B.14	SO_2	Fuel based compliance alternatives
	40 CFR 60.46b(a), Subpart Db	5.B.15	NOx	Emission standards apply at all times, even during periods of startup, shutdown, or malfunction
	40 CFR 60.46b(c) and (f)(1), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11)., as established in the Federally Enforceable Construction Permit issued May 15, 2019	5.B.16	NOx	Compliance shall be determined through performance testing as required by 40 CFR 60.46b(f). Biennial Stack Test to demonstrate compliance with the NOx permit limit.
	40 CFR 60.49b(d)(2), Subpart Db	5.B.17	Fuel	Maintain records of amounts of fuel combusted each calendar month
	40 CFR 60.49b(o), Subpart Db	5.B.18	SO_2 NOx	Maintain records for 2 years

5.B.1 For Emission Points AA-001 through AA-005 and AA-012 through AA-015, the permittee shall maintain monthly fuel usage records containing the type fuel, quantity, and heating value (Btu/ft^3) of all fuel(s) burned. When combusting refinery fuel gas, the permittee shall

also monitor and/or maintain records for H_2S concentration and sulfur content (measured as SO_2) in lb/MMBTU on a monthly basis.

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

5.B.2 For Emission Point AA-005, in accordance with 40 CFR 60, Subpart GG (60.334(h)(3)), the permittee shall monitor the sulfur content of the fuel used in accordance with the EPA approved Custom Fuel Monitoring Plan provided in Appendix C. Regardless of this plan, the permittee can maintain records from the supplier that the natural gas meets the definition of natural gas (e.g., ≤ 20.0 grains of total sulfur per 100 standard cubic feet).

(Ref.: 40 CFR 60, Subpart GG, 60.334(h))

5.B.3 For Emission Points AA-005, the permittee shall monitor and record emissions and parameters (e.g., CEMS) in accordance with 40 CFR Part 75. The permittee shall maintain all measurements, monitoring data, reports, and other information required in 40 CFR Part 75 (e.g., 40 CFR 75.10-18, 20-57, etc.) for each affected unit.

To determine NOx emissions, the permittee shall install, certify, operate, and maintain, in accordance with all the requirements of this part, a NOx-diluent continuous emission monitoring system (consisting of a NO_X pollutant concentration monitor and an O_2 or CO_2 diluent gas monitor) with an automated data acquisition and handling system for measuring and recording NO_X concentration (in ppm), O_2 or CO_2 concentration (in percent O_2 or CO_2) and NO_X emission rate (in lb/mmBtu) discharged to the atmosphere, except as provided in 40 CFR 75.12 and 75.17 and subpart E of part 75. The permittee shall account for total NO_X emissions, both NO and NO_2, either by monitoring for both NO and NO_2 or by monitoring for NO only and adjusting the emissions data to account for NO_2. The permittee shall record for each hour the information on unit operating time, heat input rate, and load outlined in 40 CFR 75.57(b) and for NOx emissions, the permittee shall record for each hour or partial hour during which the unit operates the information in 40 CFR 75.57(d).

(Ref.: 40 CFR 75.10(a)(2), 40 CFR 75.57(b) and 40 CFR 75.57(d))

5.B.4 For Emission Point AA-005, the permittee shall install, calibrate, maintain, and operate a continuous monitor (CEMS) to monitor NO_X and CO_2 emissions (40 CFR Part 75). The permittee shall monitor and record the actual measured NO_X in ppm to calculate lb/MMBtu and pounds per hour (lb/hr) levels. Measurements of SO_2 emissions and heat input shall be performed in accordance with Appendix D of 40 CFR 75, which uses measured fuel flow, gross calorific value, and a conservative default SO_2 emission factor. By demonstrating compliance with the above conditions of 40 CFR 75, the unit is considered in compliance with NO_X monitoring conditions of 40 CFR 60 Subpart GG. The Custom Fuel Monitoring Plan provided in Appendix C of this permit further details this requirement. The CEMS shall be used to meet these requirements of Subpart GG, except that the missing data substitution methodology provided for in 40 CFR Part 75, Subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing

CEMS data shall be reported as monitor downtime in the excess emissions and monitoring performance report required by 40 CFR 60.7(c).

(Ref.: 40 CFR 60, Subpart GG)

5.B.5 For Emission Point AA-005, the permittee shall monitor and record the actual measured NOx and CO_2 levels for all hours in which the CO_2 concentration falls below 2.5%. These records should also include the total number of operating hours in the calendar quarter. This is an alternative periodic monitoring method which allows the permittee to certify compliance with the NO_X emission limit of 15 ppm at 15% O_2 since past emissions testing has proven that when the CO_2 concentration is above 2.5% the unit is in compliance.

(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 compliance with the NOx emission limits by performing a stack test annually in accordance with EPA Reference Method 20, or an approved equivalent. The Stack testing shall be performed under normal operating conditions and while operating at or near capacity. The NOx stack test shall be performed by the end of the calendar year 2017, and then test shall be conducted annually thereafter by the end of the 4th calendar quarter of the respective year (e.g., December 31, 2017 and December 31, 2018).

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

5.B.7 For Emission Point AA-005, the permittee shall demonstrate compliance with the PM/PM_{10}, CO and VOC emission limits by performing a stack test(s) biennially in accordance with EPA Reference Methods 1-5, 10 and 25, respectively, or an approved equivalent. Stack testing shall be performed under normal operating conditions and while operating at or near capacity. The stack testing shall be performed by end of calendar year 2018, and then tests shall be conducted biennially thereafter by the end of the 4th calendar quarter of the respective year (e.g., December 31, 2020 and December 31, 2022).

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

5.B.8 For Emission Point AA-005, the permittee shall maintain records of the occurrence and duration of any startup or shutdown, or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall include the time and date of such startups and shutdowns.

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

5.B.9 For Emission Point AA-012 and AA-013, the permittee shall record and maintain records of operation and maintenance (O&M) requirements. The permittee shall also log each engine startup (and idle) time. In addition, the permittee shall report each instance where an emission limitation or operating limitation in Table 2d of 40 CFR 63, Subpart ZZZZ

was not met (see Permit Condition 3.B.19). These instances are deviations from the emission and operating limitations and are required to be reported.

(Ref.: 40 CFR 63, Subpart ZZZZ, 63. 63.6640(a)&(b), 63.6650, and Table 2d)

5.B.10 For Emission Point AA-015, the permittee shall maintain documentation that the engines are certified to the emission standards in 40 CFR 60.4205 for the same model year and maximum engine power. Records shall also be maintained that document the engines were installed and configured according to the manufacturer's emission-related specifications.

(Ref.: 40 CFR 60.4211(c) and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.11 For Emission Point AA-015, the permittee shall maintain records documenting that the engines and control devices (if applicable) were operated and maintained according to the manufacturer's emission-related written instructions. The permittee is only allowed to change those emission-related settings that are permitted by the manufacturer.

(Ref.: 40 CFR 60.4211(a) and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.12 For Emission Point AA-015, the permittee shall keep records of the hours of operation of the emergency engine that is recorded through the non-resettable 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.

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

5.B.13 For Emission Point AA-015, the permittee shall maintain records, which document that the engines were only fired with diesel fuel meeting the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(Ref.: 40 CFR 60.4207(b) and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.B.14 For Emission Points AA-003 and AA-004, 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. 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)., as established in the Federally Enforceable Construction Permit issued May 15, 2019)

5.B.15 For Emission Points AA-003 and AA-004, the NOx emission standards in Condition 3.B.27 shall apply at all times even during periods of startup, shutdown, or malfunction.

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

5.B.16 For Emission Points AA-003 and AA-004, for duct burners used in combined cycle systems, the permittee shall conduct a performance test biennially not to exceed 25 months from the previous test. The performance test shall be conducted in accordance with (a) – (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 this part or Method 320 of appendix A of part 63 shall be used to determine the NO_X concentrations. Method 3A or 3B of appendix A of this part shall be used to determine O_2 concentration.

(c) The permittee shall identify and demonstrate to the MDEQ'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 limits under Condition 3.B.27is determined by the three-run average (nominal 1-hour runs) for the initial and subsequent performance tests.

(Ref.: 40 CFR 60.46b(c) and (f)(1), Subpart Db and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2)., as established in the Federally Enforceable Construction Permit issued May 15, 2019)

5.B.17 For Emission Points AA-003 and AA-004, the permittee shall record and maintain records of the amounts of each fuel combusted during each calendar month.

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

5.B.18 For Emission Points AA-003 and AA-004, the permittee shall maintain all records for a period of 2 years following the date of such record.

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

C. Specific Reporting Requirements

Emission Point(s)	Pollutant/Parameter Monitored	Reporting Requirement	Condition Number	Applicable Requirement
AA-001 thru AA-005 and AA-012 thru AA-015	Fuels	Semi-Annual Report	5.C.1	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2). 40 CFR 60, Subpart GG (60.334(h))
AA-005	NO_X, SO_2	Annual Report	5.C.2	40 CFR Part 72.90(b)
AA-005	CO_2 concentration	Quarterly Report	5.C.3	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).
AA-005	PM, CO, NO_X, and VOC	Stack Test Notification and Stack Test Report	5.C.4	PTC issued March 23, 1995, and modified January 9, 1996, and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).
AA-005	Startup/Shutdown	Semi-Annual Report	5.C.5	11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).
AA-012 and AA-013	Operation and Maintenance	Semi-Annual Report	5.C.6	40 CFR Part 63 Subpart ZZZZ
AA-003 and AA-004 (Duct Burners Only)	NOx	Performance Test Data	5.C.7	40 CFR 60.49b(b), Subpart Db
	SO_2	Reports of very low sulfur fuels	5.C.8	40 CFR 60.49b(r)(1) Subpart Db
	NOx SO_2	Site Specific Fuel Analysis Plan	5.C.9	40 CFR 60.49b(r)(2), Subpart Db
		Fuel Analysis Report	5.C.10	40 CFR 60.49b(r)(2), Subpart Db
		Semi-Annual Report	5.C.11	40 CFR 60.49b(w), Subpart Db

5.C.1 For Emission Points AA-001 through AA-005 and AA-012 through AA-015, the permittee shall submit fuel usage reports semi-annually in accordance with Paragraph 5.A.4 and Permit Conditions in 5.B. This report should include type, quantity, and heating value (Btu/ft^3) of all fuels burned.

For Emission Point AA-005, the permittee shall submit fuel records containing the sulfur content (% by weight) of the natural gas being burned in accordance with the Custom Fuel Monitoring Plan found in Appendix D, semi-annually.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2)., 40 CFR 60, Subpart GG (60.334(h)).

5.C.2 For Emission Point AA-005, the permittee shall submit an annual report to the Administrator in accordance with the terms outlined in Section 4 and 40 CFR Part 72.90 (b).

(Ref.: 40 CFR Part 72.90 (b))

5.C.3 For Emission Point AA-005, the permittee shall submit a report of the actual measured NO_X and CO_2 levels for all hours in which the CO_2 concentration falls below 2.5%. The summary report shall be submitted to the DEQ on a quarterly basis. If there are no instances during the calendar quarter where the CO_2 concentration falls below 2.5%, the permittee shall submit a report semi-annually stating that no such instances have occurred during the previous reporting period(s). The summary report should be submitted within thirty (30) days of the close of each calendar quarter or semi-annual period.

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

5.C.4 For Emission Points AA-005 the permittee shall submit a written test protocol at least sixty (60) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the DEQ. Also, the permittee shall notify the DEQ in writing at least ten (10) days prior to the intended test date(s) so that an observer may be afforded the opportunity to witness the test.

After the first successful submittal of an initial written test protocol in conjunction with the initial compliance tests, the permittee may request that the resubmittal of 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. The permittee shall submit a test report for Emission Points AA-005 within sixty (60) days after each test has been completed.

(Ref.: PTC issued March 23, 1995, and modified January 9, 1996, and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(a)(2).)

5.C.5 For Emission Point AA-005, the permittee shall submit semi-annual reports detailing startups, shutdowns, and upsets as defined by the Permit. This report shall be submitted in accordance with Condition 5.A.4.

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

5.C.6 For Emission Point AA-012 and AA-013, the permittee shall submit a semi-annual

summary report of any deviation from the required operation and maintenance requirements in accordance with 5.A.4. In addition, any deviation from the requirements shall be reported in accordance with Permit Condition 5.A.5.

(Ref.: 40 CFR 63, Subpart ZZZZ)

5.C.7 For Emission Points AA-003 and AA-004, the permittee shall submit the performance test data from the each performance test within sixty (60) days of conducting the performance test.

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

5.C.8 For Emission Points AA-003 and AA-004, the permittee shall submit reports in accordance with Condition 5.A.4 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)

5.C.9 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.B.14 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)

5.C.10 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.B.14, the permittee shall submit a fuel analysis report in accordance with Condition 5.A.4 which contains, at a minimum, the following information:

(a) The potential sulfur emissions rate of the representative fuel mixture in ng/J or lb/MMBtu heat input;

(b) 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;

(c) The ratio of different fuels in the mixture; and

(d) 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).)

5.C.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)

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

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://ecfr.gpoaccess.gov** under Title 40, or DEQ shall provide a copy upon request from the permittee.

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

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

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

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

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

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

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

(a) Servicing, maintaining, or repairing appliances;

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

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

persons selling class I or class II refrigerants or offering class I or class II refrigerants for sale, and persons purchasing class I or class II 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 (TITLE IV) REQUIREMENTS

The permittee shall comply with all requirements of the Phase II Acid Rain Permit attached as Appendix B of this permit. All conditions of the Phase II Acid Rain Permit are effective from the Title V Operating Permit issuance date through the Permit expiration date; however, these conditions may be revised by the MDEQ 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 units and the unit-specific monitoring provisions at this source are identified in the following Tables. These units are subject to the requirements for the CSAPR NOx Ozone Season Group 2 Trading Program.

Unit ID: Unit 5					
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/monitoring-plans-part-75-sources.

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 NO_X Ozone Season Group 2 source and each CSAPR NO_X 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 NO_X Ozone Season

Group 2 allowances under 40 CFR 97.811(a)(2) and (b) and 97.812 and to determine compliance with the CSAPR NO_X 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) NO_X emissions requirements.

(1) CSAPR NO_X 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 NO_X Ozone Season Group 2 source and each CSAPR NO_X Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, CSAPR NO_X 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 NO_X emissions for such control period from all CSAPR NO_X Ozone Season Group 2 units at the source.

(ii) If total NOX emissions during a control period in a given year from the CSAPR NO_X Ozone Season Group 2 units at a CSAPR NO_X Ozone Season Group 2 source are in excess of the CSAPR NO_X 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 NO_X Ozone Season Group 2 unit at the source shall hold the CSAPR NO_X 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 NO_X Ozone Season Group 2 assurance provisions.

(i) If total NO_X emissions during a control period in a given year from all CSAPR NO_X Ozone Season Group 2 units at CSAPR NO_X 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 NO_X 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 NO_X 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 NO_X 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 NO_X emissions exceeds the respective common designated representative's assurance level; and

(B) The amount by which total NO_X emissions from all CSAPR NO_X Ozone Season Group 2 units at CSAPR NO_X 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 NO_X Ozone Season Group 2 allowances required under paragraph 93.7(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 NO_X emissions from all CSAPR NO_X 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 NO_X emissions exceed the sum, for such control period, of the State NO_X 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 NO_X emissions from all CSAPR NO_X Ozone Season Group 2 units at CSAPR NO_X 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 NO_X emissions from the CSAPR NO_X Ozone Season Group 2 units at CSAPR NO_X 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 NO_X Ozone Season Group 2 allowances for a control period in a given year in accordance with paragraphs 9.7(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 NO_X Ozone Season Group 2 allowance that the permittee fails to hold for such control period in accordance with paragraphs 9.7(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 NO_X Ozone Season Group 2 unit shall be subject to the requirements under paragraph 9.7(c)(1) above for the control period starting on the later of May 1, 2015 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 CSAPR NO_X 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 NO_X Ozone Season Group 2 allowance held for compliance with the requirements under paragraph 9.7(c)(1)(i) above for a control period in a given year must be a CSAPR NO_X Ozone Season Group 2 allowance that was allocated for such control period or a control period in a prior year.

(ii) A CSAPR NO_X Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs 9.7(c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a CSAPR NO_X 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 NO_X 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 NO_X Ozone Season Group 2 allowance is a limited authorization to emit one ton of NO_X 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 NO_X 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 NO_X 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 NO_X 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 minor 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 NO_X Ozone Season Group 2 source and each CSAPR NO_X 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 NO_X 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 NO_X Ozone Season Group 2 Trading Program.

(2) The designated representative of a CSAPR NO_X Ozone Season Group 2 source and each CSAPR NO_X Ozone Season Group 2 unit at the source shall make all submissions required under the CSAPR NO_X 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 NO_X Ozone Season Group 2 Trading Program that applies to a CSAPR NO_X Ozone Season Group 2 source or the designated representative of a CSAPR NO_X Ozone Season Group 2 source shall also apply to the permittee of such source and of the CSAPR NO_X Ozone Season Group 2 units at the source.

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

(g) Effect on other authorities - No provision of the CSAPR NO_X 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 NO_X Ozone Season Group 2 source or CSAPR NO_X 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

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

APPENDIX B

LIST OF REGULATIONS REFERENCED IN PERMIT

The full text of the regulations referenced in this permit may be found on-line at http://www.deq.state.us.us and http://ecfr.gpoaccess.gov, or the Mississippi Department of Environmental Quality (MDEQ) will provide a copy upon request. A list of regulations referenced in this permit is shown below:

Title 11, Part 2, Chapter 2: Mississippi Commission on Environmental Quality, Permit Regulations for the Construction and/or Operation of Air Emissions Equipment (Adopted May 8, 1970; Last Amended July 28, 2005)

Title 11, Part 2, Chapter 1: Mississippi Commission on Environmental Quality, Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants (Adopted May 8, 1970. Last Amended December 14, 2011)

Title 11, Part 2, Chapter 6: Mississippi Commission on Environmental Quality, Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act (Adopted October 27, 1993, Last Amended June 28, 2012)

40 CFR Part 82 - Title VI of the Clean Air Act (Stratospheric Ozone Protection)

40 CFR Part 60, Subpart A - Standards of Performance for New Stationary Source General Provisions

40 CFR Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR 60, Subpart GG – Standards of Performance for Stationary Gas Turbines

Cross State Air Pollution Rule, 40 CFR Part 97, Subpart EEEEE – CSAPR NOx Ozone-Season Trading Program

Acid Rain Program Regulation, 40 CFR Parts 72-78

40 CFR 60, Subpart Db – Standards of Performance for Industrial-Commervcial-Institutional Steam Generating Units

APPENDIX C

PHASE II ACID RAIN PERMIT

PHASE II ACID RAIN PERMIT

Issued to: Mississippi Power Company, Chevron Cogenerating Plant
Operated by: Mississippi Power Company
ORIS code: 2047
Effective: ***Title V Permit Issuance Date*** through ***Title V Permit Expiration Date***

Summary of Previous Actions:

This page will be replaced to document new actions each time a new action is taken by the MDEQ. This is a summary of the previous permitting actions:

1)	Draft permit for public and EPA comment.	September 11, 1997
2)	Permit finalized and issued.	December 30, 1997
3)	Draft renewal permit for public and EPA comment.	June 27, 2003
4)	Renewal permit finalized and re-issued.	September 17, 2003
5)	Draft renewal permit for public and EPA comment.	January 14, 2009
6)	Renewal permit finalized and re-issued.	March 17, 2009
7)	Draft renewal permit for public and EPA comment.	July 30, 2014
8)	Draft renewal permit for 2nd public notice and public hearing	February 26, 2015
9)	Renewal permit finalized and re-issued.	December 18, 2018

Present Action:

10)	Modification permit finalized and re-issued.	June 29, 2022

Signature Date

Krystal Rudolph, P.E., BCEE, Chief
Environmental Permits Division
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, MS 39225-2261
Telephone: (601) 961-5171 Fax: (601) 961-5703

Issued to: Mississippi Power Company, Chevron Cogenerating Plant
Operated by: Mississippi Power Company
ORIS code: 2047
Effective: ***Title V Permit Issuance Date*** through ***Title V Permit Expiration Date***

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, Regulation 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, Regulation 11 Miss. Admin. Code Pt. 2, Ch. 7..

2) SO_2 Allowance Allocations and NO_X Requirements for each Affected Unit:

		2018	2019	2020	2021	2022	2023
AA-005	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR Part 73.	N/A	N/A	N/A	N/A	N/A	N/A
	NO_x limit	N/A					

Note: The number of allowances allocated to Phase II affected units by U.S. EPA may change per revisions to 40 CFR Part 73, Tables 2, 3, and 4. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

3) Comments, Notes, and Justifications:

All affected units are natural gas-fired units; therefore, the affected units are not subject to the NO_X requirements outlined in 40 CFR Part 76. Additionally, these are new units that were not listed in 40 CFR 73, Tables 2, 3, or 4 and have not been allocated any SO_2 allowances.

4) Phase II Permit Application and NO_X Compliance & Averaging Plan:

On file or attached.

APPENDIX D

CUSTOM FUEL MONITORING PLAN

Custom Fuel Sampling and Analysis Plan for Chevron Unit 5

Introduction

Chevron 5 is a combined cycle unit located at the Chevron refinery in Pascagola, 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 burn 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

[2] US Environmental Protection Agency, Office of Air Quality Planning and Standards, Standards Support and Environmental Impact Statement Volume 1: Proposed Standards of Performance for Stationary Gas Turbines, EPA-450/2-77-017a, September 1977.

consistent with the objective of the fuel-bound nitrogen allowance, the SO_2 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 NO_X 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.**

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