STATE OF MISSISSIPPI
AND FEDERALLY ENFORCEABLE
AIR POLLUTION CONTROL

PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT AT A SYNTHETIC MINOR SOURCE

THIS CERTIFIES THAT

Goodrich Petroleum Company LLC, CMR Foster Creek 8H Central Facility
Helmer Road
Centreville, Mississippi
Wilkinson 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 the Federal Clean Air Act and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), the regulations and standards adopted and promulgated thereunder, and the State Implementation Plan for operating permits for synthetic minor sources.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Krystal Rudolph

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: MAY 2 2 2018 **Permit No.: 2940-00039**

Effective Date: As specified herein.

Expires: April 30, 2023

66260 PER20140002

SECTION 1

A. GENERAL CONDITIONS

1. This permit is for air pollution control purposes only.
   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D.)

2. This permit is a Federally-approved permit to operate a synthetic minor source as described in 11 Miss. Admin. Code Pt. 2, R. 2.4.D.
   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.4.D.)

3. Any activities not identified in the application are not authorized by this permit.
   (Ref.: Miss. Code Ann. 49-17-29 1.b)

4. The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for constructing or operating without a valid permit.
   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(5).)

5. The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities.
   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(7).)

6. 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 unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state.
   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(a).)

7. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(c).)

8. The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their authorized representatives, upon the presentation of credentials:

   a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit, and

   b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission.

   (Ref.: Miss. Code Ann. 49-17-21)

9. Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control.

   (Ref.: Miss. Code Ann. 49-17-39)

10. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(7).)

11. 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. 2.1.D(7).)

12. This permit does not authorize a modification as defined in Regulation 11 Miss. Admin. Code Pt. 2, Ch.2., "Permit Regulations for the Construction and/or Operation of Air Emission Equipment." A modification may require a Permit to Construct and a modification of this permit. Modification is defined as "Any physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:

    a. Routine maintenance, repair, and replacement;
    b. Use of an alternative fuel or raw material by reason of an order under Sections 2(a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
    c. Use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;
    d. Use of an alternative fuel or raw material by a stationary source which:
        (1) The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 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 40CFR 51.66;
    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).)

B. GENERAL OPERATIONAL CONDITIONS

1. 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 Regulation, 11 Miss. Admin. Code Pt. 2, "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.10.)

2. Any diversion from or bypass of collection and control facilities is prohibited, except as provided for in 11 Miss. Admin. Code Pt. 2, R. 1.10., "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants."

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

3. Solids removed in the course of control of air emissions shall be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits.

   (Ref.: Miss. Code Ann. 49-17-29 1.a(i and ii))

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

   a. Upsets

      (1) For an upset defined in 11 Miss. Admin. Code Pt. 2, R. 1.2., 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 by 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.)

5. Compliance Testing: Regarding compliance testing:

a. The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.

b. Compliance testing will be performed at the expense of the permittee.

c. Each emission sampling and analysis report shall include but not be limited to the following:

(1) Detailed description of testing procedures;

(2) Sample calculation(s);

(3) Results; and

(4) Comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.6.B(3), (4), and (6).)

C. PERMIT RENEWAL / MODIFICATION / TRANSFER / TERMINATION

1. For renewal of this permit, the applicant shall make application not less than one-hundred eighty (180) days prior to the expiration date of the permit substantiated with current emissions data, test results or reports or other data as deemed necessary by the Mississippi Environmental Quality Permit Board. If the applicant submits a timely and complete application pursuant to this paragraph and the Permit Board, through no fault of the applicant, fails to act on the application on or before the expiration date of the existing permit, the applicant shall continue to operate the stationary source under the terms and conditions of the expired permit, which shall remain in effect until final action on the application is taken by the Permit Board. Permit expiration terminates the source's ability to operate unless a timely and complete renewal application has been submitted.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.8.)

2. 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 permit or, for information claimed to be confidential, the permittee shall furnish such records to the 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. 2.2.B(15)(d).)

3. The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. 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. 2.2.B(15)(b).)

4. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:

   a. Persistent violation of any terms or conditions of this permit.
   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
   c. A change in federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission.

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

5. This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board.
(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.16.B.)

SECTION 2
EMISSION POINT DESCRIPTION

The permittee is authorized to operate air emissions equipment, as described in the following table.

Emission Point	Facility Reference	Description
AA-000	---	**Entire Oil and Gas Production Facility**
AA-001	5-14-F	Process Control Flare
AA-002	17-14-LL	Oil Loading Operations – emissions from this source are vented to the atmosphere
AA-004	3-14-ICE-ES	One (1) 7.9 HP Circulating Pump Engine – This unit is a gasoline fired, non-emergency engine which was constructed in March 2015
AA-005	1-14-HT-BS	One (1) 0.5 MMBTU/hr Heater Treater – emissions from this unit are routed to the control flare (AA-001)
AA-006[1]	20-14-CST	One (1) 60 Gallon Chemical Storage Tank
AA-010	18-14-PC	Facility-Wide Pneumatic Controllers
AA-011	4a-14-OST-CV	One (1) 16,800 Gallon (400 bbl) Oil Storage Tank – emissions from this unit are routed to the control flare (AA-001)
AA-012	4b-14-OST-CV	One (1) 16,800 Gallon (400 bbl) Oil Storage Tank – emissions from this unit are routed to the control flare (AA-001)
AA-013	4c-14-OST-CV	One (1) 16,800 Gallon (400 bbl) Oil Storage Tank – emissions from this unit are routed to the control flare (AA-001)
AA-014	4d-14-WST-CV	One (1) 16,800 Gallon (400 bbl) Water Storage Tank – emissions from this unit are routed to the control flare (AA-001)
AA-015	4e-14-WST-CV	One (1) 16,800 Gallon (400 bbl) Water Storage Tank – emissions from this unit are routed to the control flare (AA-001)
AA-016	4f-14-WST-CV	One (1) 16,800 Gallon (400 bbl) Water Storage Tank – emissions from this unit are routed to the control flare (AA-001)
AA-017[1]	9-14-BV	Blowcase Vessel (Drip Pot)
AA-018[1]	10-14-BV	Blowcase Vessel (Flare Liquids)
AA-019[1]	11-14-BV	Blowcase Vessel (Pump Skid Fluids)
AA-020[1]	21-14-LOT	One (1) 55 Gallon Lube Oil Tank
AA-021	19-14-FE	Facility-Wide Fugitive Emissions
AA-022	4g-14-OST-CV	One (1) 16,800 Gallon (400 bbl) Oil Storage Tank – emissions from this unit are routed to the control flare (AA-001)

Emission Point	Facility Reference	Description
AA-023	4h-14-OST-CV	One (1) 16,800 Gallon (400 bbl) Oil Storage Tank – emissions from this unit are routed to the control flare (AA-001)
AA-024	4i-14-OST-CV	One (1) 16,800 Gallon (400 bbl) Oil Storage Tank – emissions from this unit are routed to the control flare (AA-001)
AA-025	4j-14-WST-CV	One (1) 16,800 Gallon (400 bbl) Water Storage Tank – emissions from this unit are routed to the control flare (AA-001)
AA-026	22-14-HT-BS	One (1) 0.5 MMBTU/hr Heater Treater – emissions from this unit are routed to the control flare (AA-001)
AA-027	23-14-ICE-ES	One (1) 226 HP Jet Pump Engine – This unit is a four stroke, rich burn natural gas fired, non-emergency engine which was constructed in 2015 and manufactured before July 1, 2008
AA-028	29-15-ICE-ES	One (1) 226 HP Jet Pump Engine – This unit is a four stroke, rich burn natural gas fired, non-emergency engine which was constructed in 2015 and manufactured before July 1, 2008
AA-029[1]	24-15-LOT	One (1) 55 Gallon Lube Oil Tank
AA-030[1]	25-15-CST	One (1) 135 Gallon Chemical Storage Tank
AA-031[1]	26-15-CST	One (1) 135 Gallon Chemical Storage Tank
AA-032[1]	27-15-CST	One (1) 135 Gallon Chemical Storage Tank
AA-033[1]	28-15-CST	One (1) 135 Gallon Chemical Storage Tank
AA-034[1]	30-16-LOT	One (1) 55 Gallon Lube Oil Tank
AA-035[1]	31-16-LOT	One (1) 55 Gallon Lube Oil Tank
AA-036[1]	32-16-LOT	One (1) 330 Gallon Lube Oil Tank
AA-037[1]	33-16-LOT	One (1) 330 Gallon Lube Oil Tank

1) These emission points are expected to produce negligible emissions. They have been included in this table for informational purposes only.

SECTION 3
EMISSION LIMITATIONS AND STANDARDS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Limitation/Standard
AA-000	11 Miss. Admin. Code Pt. 2, R. 1.3.A.	3.1	Opacity	Facility-wide opacity limitations
	11 Miss. Admin. Code Pt. 2, R. 1.3.B.	3.2		
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.3	VOC	95.0 tpy
		3.4	HAPs	9.0 tpy for any individual HAP 24.0 tpy for all combined HAPs
	11 Miss. Admin. Code Pt. 2, R. 1.4.B(2).	3.5	H_2S	One (1) grain per 100 standard cubic feet
AA-001	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.6	PM/PM_{10} (*filterable only*)	0.6 lb/MMBTU per hour heat input ***Demonstration of compliance through Condition 4.2(c)*
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.7	Control Efficiency	Demonstrate a control efficiency of 98% by operating according to 40 CFR Part 60.18
AA-004 AA-005 AA-026 AA-027 AA-028	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.8	PM/PM_{10} (*filterable only*)	0.6 lb/MMBTU per hour heat input
AA-004 AA-027 AA-028	40 CFR Part 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (63.6585(a) and (c))	3.9	VOC	Applicability
AA-004	40 CFR Part 63, Subpart ZZZZ (63.6590(a)(2)(iii) and 63.6590(c)(1))	3.10	VOC	Demonstration of compliance with Part 63, Subpart ZZZZ by compliance with the specified requirements of Part 60, Subpart JJJJ
	40 CFR Part 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (60.4233(a), 60.4231(a), and 60.4234)	3.11		Emission standards
	40 CFR Part 60, Subpart JJJJ (60.4235 and 80.195(a)(1))	3.12	Fuel Requirements	Only use gasoline which contains no more than 80 ppm of sulfur

3.1 For the entire facility (Emission Point AA-000), 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. 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.

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

3.2 For the entire facility (Emission Point AA-000), except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Condition 3.1. This shall not apply to vision obscuration caused by uncombined water droplets.

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

3.3 For the entire facility (Emission Point AA-000), the permittee shall limit the emissions of Volatile Organic Compounds (VOC) to no more than 95.0 tons per year for each consecutive 12-month period on a rolling basis.

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

3.4 For the entire facility (Emission Point AA-000), the permittee shall limit the emissions of any individual hazardous air pollutant (HAP) from both sources to no more than 9.0 tpy for each consecutive 12-month period on a rolling basis. The permittee shall limit the emissions of all combined HAPs from both sources to no more than 24.0 tpy for each consecutive 12-month period on a rolling basis.

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

3.5 For Emission Point AA-000, the permittee shall not permit the emission of any gas stream which contains hydrogen sulfide (H_2S) in excess of one grain per 100 standard cubic feet. Gas streams containing hydrogen sulfide in excess of one grain per 100 standard cubic feet shall be incinerated at temperatures of no less than 1600 °F for a period of no less than 0.5 seconds or processed in such a manner which is equivalent to or more effective for the removal of hydrogen sulfide.

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

3.6 For Emission Point AA-001, the permittee shall limit the particulate emissions from fossil fuel burning installations of less than 10 MMBTU/hr heat input to no more than 0.6 pounds per MMBTU per hour heat input. The permittee shall demonstrate compliance with this condition by complying with the requirements of Condition 4.2(c).

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

3.7 For Emission Point AA-001, in order to demonstrate a control efficiency of at least 98%, the permittee shall operate the control flare according to the requirements of 40 CFR Part 60.18(b) and Condition 4.2 at all times when receiving gas streams.

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

3.8 For Emission Points AA-004, AA-005, AA-026, AA-027, and AA-028, the permittee shall limit the particulate emissions from fossil fuel burning installations of less than 10 MMBTU/hr heat input to no more than 0.6 pounds per MMBTU per hour heat input.

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

3.9 Emission Points AA-004, AA-027, and AA-028 are stationary reciprocating internal combustion engines (RICE) located at an area source of HAPs. As such, these engines are subject to and shall comply with all applicable requirements of 40 CFR Part 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

(Ref.: 40 CFR 63.6585(a) and (c))

3.10 Emission Point AA-004 is a stationary RICE located at an area source of HAP emissions which was constructed after June 12, 2006. As such, this engine is considered to be a new stationary RICE and shall demonstrate compliance with the requirements of Subpart ZZZZ by complying with the applicable requirements of Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

(Ref.: 40 CFR 63.6590(a)(2)(iii) and 63.6590(c)(1))

3.11 For Emission Point AA-004, the permittee shall meet the emissions standards outlined in 40 CFR 60.4231(a) as applicable. The permittee shall operate and maintain the affected engine such that it achieves these emission standards for the entire life of the affected engine.

(Ref.: 40 CFR 60.4233(a), 60.4231(a), and 60.4234)

3.12 For Emission Point AA-004, the permittee shall only combust gasoline which contains no more than 80 parts per million (ppm) sulfur.

(Ref.: 40 CFR 60.4235 and 80.195)

SECTION 4
WORK PRACTICES

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Work Practice
AA-000	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	4.1	VOC/HAP	Operate all equipment as efficiently as possible and perform routine maintenance
AA-001	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	4.2	VOC/HAP	Control flare operating requirements
AA-005, AA-011 through AA-016, and AA-022 through AA-026	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	4.3	VOC/HAP	Route all process gas to the flare for control
AA-027 AA-028	40 CFR Part 63, Subpart ZZZZ (63.6603(a) and Item 10 of Table 2d)	4.4	Exhaust Emissions	Operating requirements

4.1 For the entire facility (Emission Point AA-000), in order to minimize the emissions of air pollutants, the permittee shall operate all air emissions equipment as efficiently as possible. Furthermore, the permittee shall perform routine maintenance on all air emissions equipment such that the equipment may be operated in an efficient manner.

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

4.2 For Emission Point AA-001, the permittee shall operate the control flare according to the requirements specified in paragraphs (a) through (e):

(a) The control flare shall be operated at all times when emissions may be vented to it.

(b) The flare shall be operated and maintained according to the manufacturer's recommendations.

(c) The flare shall be operated with no visible emissions as determined by EPA Method 22, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.

(d) The permittee shall maintain a flare pilot flame, auto ignitor, or any equivalent device at all times when emissions may be vented to the flare.

(e) The flare shall only be used with a combustion gas mixture whose net heating value is 300 BTU/scf or greater if the flare is air or steam-assisted. If the flare is non-assisted, the flare shall only be used with a combustion gas mixture whose net heating value is 200 BTU/scf or greater.

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

4.3 For Emission Points AA-005, AA-011 through AA-016, and AA-022 through AA-026, the permittee shall route all gaseous emissions to Emission Point AA-001 (the process flare)) for control.

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

4.4 For Emission Points AA-027 and AA-028, in order to demonstrate compliance with Subpart ZZZZ, the permittee shall maintain the engines according to the following work practices:

(a) Change oil and filter every 1,440 hours of operation or annually, whichever comes first;

(b) Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary; and

(c) Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

The permittee has the option to utilize an oil analysis program as described in 40 CFR 63.6625(j) in order to extend the oil change required by paragraph (a) above.

(Ref.: 40 CFR 63.6603(a) and Item 10 of Table 2d)

SECTION 5
MONITORING AND RECORDKEEPING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/ Parameter	Monitoring/Recordkeeping Requirement
AA-000	11 Miss. Admin. Code Pt. 2, R. 2.9.	5.1	Recordkeeping	Maintain records for a minimum of 5 years.
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.2	Natural Gas	Perform biennial natural gas analysis
		5.3	Recordkeeping	Facility-wide recordkeeping requirements
AA-001	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.4	VOC/HAP	Control flare monitoring requirements
		5.5		Control flare recordkeeping requirements
AA-004 AA-027 AA-028	40 CFR Part 63, Subpart ZZZZ (63.6605)	5.6	VOC	General compliance requirements
AA-004	40 CFR Part 60, Subpart JJJJ (60.4243(a)(1) and (a)(2)(i))	5.7	VOC	Demonstration of compliance
	40 CFR Part 60, Subpart JJJJ (60.4245(a))	5.8		Recordkeeping requirements
AA-027 AA-028	40 CFR Part 63, Subpart ZZZZ (63.6625(e)(8))	5.9	VOC	Monitoring requirements
	40 CFR Part 63, Subpart ZZZZ (63.6625(h))	5.10		Minimize idling time during start-up
	40 CFR Part 63, Subpart ZZZZ (63.6655(a), (d), and (e))	5.11		Recordkeeping requirements

5.1 The permittee shall retain all required records, monitoring data, supporting information and reports 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 or other data for continuous monitoring instrumentation, and copies of all reports required by this permit. Copies of such records shall be submitted to MDEQ as required by Applicable Rules and Regulations or this permit or upon request.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.9.)

5.2 The permittee shall perform a biennial natural gas analysis which shall determine the following properties of the gas: hydrogen sulfide concentration, sulfur content, methane concentration (by volume), gross heating value, molecular weight, specific gravity, and speciated VOC components. Additionally, an updated field gas analysis shall be conducted no later than 90 days following the startup of any new wells.

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

5.3 For the entire facility (Emission Point AA-000), in order to demonstrate compliance with the limitations specified in Section 3, the permittee shall maintain the following records:

(a) The amount of VOC, individual HAP, and total HAPs emitted, in tons per year, on a monthly basis and for each consecutive 12-month period on a rolling basis. This record shall demonstrate compliance utilizing gas flow measurement, gas analysis, calculations, and any other relevant information.

(b) The results of the most recent natural gas analysis conducted as specified in Condition 5.2.

(c) The calculated cubic feet of natural gas burned, as fuel, on a monthly basis.

(d) The barrels of oil produced on a monthly basis.

(e) The cubic feet of natural gas produced on a monthly basis.

(f) The cubic feet of natural gas flared on a monthly basis.

(g) Records of the monthly visible emission observation on the flare.

(h) The calculated annual gas to oil ratio (GOR) using the information gathered in accordance with paragraphs (d) and (e) of this condition.

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

5.4 For Emission Point AA-001, the permittee shall comply with the following monitoring requirements outlined in paragraphs (a) through (d):

(a) If the permittee utilizes a pilot flame in the flare, the permittee shall monitor presence of the flare pilot flame by one of the methods described in paragraphs (1) or (2) below.

(1) The use of a thermocouple or any other equivalent device to detect the presence of a flame, or

(2) Visual observation of the presence of a flame at least once daily.

(b) If the permittee utilizes an auto-ignitor in the flare, the permittee shall keep a weekly log showing that the auto-ignitor is activated and operating in a manner such that the gas emissions routed to the flare are controlled.

(c) The permittee shall perform monthly visual observations of the flare for a minimum of five (5) minutes during operation using EPA Method 22. If smoking is observed, corrective actions shall be taken. To demonstrate compliance with the visible emission limitation in Condition 4.2(c), the permittee shall perform a follow-up visual observation for a period of two (2) hours using EPA Method 22 immediately after the appropriate corrective action(s) has been made.

(d) In order to demonstrate compliance with Condition 4.2(e), the permittee shall perform a biennial field gas analysis to determine the net heating value of the gas being combusted by the flare.

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

5.5 For Emission Point AA-001, the permittee shall comply with the following recordkeeping requirements outlined in paragraphs (a) through (d):

(a) The permittee shall keep records of all maintenance performed on the flare in order to operate the flare in accordance with the manufacturer's recommendation.

(b) The permittee shall maintain hourly records of the thermocouple or equivalent device output demonstrating the presence of a flame in the control flare whenever

the flare is in operation or operate an auto-ignition system. If the permittee is complying with the flame detection requirement using the visual observation requirement, then the permittee shall maintain daily records which document that the observation occurred, the date and time of the observation, whether or not the flame was present, and what, if any, corrective actions were taken.

(c) The permittee shall maintain records of all visual observations, the nature and cause of any visible emissions, any corrective action(s) taken, the date and time when visual observations were conducted and any corrective action(s) was taken.

(d) The permittee shall maintain records of the biennial field gas analysis performed to determine the net heating value of the gas being combusted.

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

5.6 For Emission Points AA-004, AA-027, and AA-028, the permittee shall be in compliance with all applicable emission limitations, operating limitations and any other requirements in Subpart ZZZZ at all times. The permittee shall also operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the MDEQ which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(Ref.: 40 CFR 63.6605)

5.7 For Emission Point AA-004, the permittee shall demonstrate compliance with the emission standards specified in 40 CFR 60.4233(a) by purchasing an engine certified to the emission standards in 40 CFR 60.4231(a) for the same engine class and maximum engine power. Furthermore, the permittee shall demonstrate compliance by meeting the requirements of either paragraph (a) or (b) below:

(a) If the certified engine is operated and maintained according to the manufacturer's emission related instructions, then the permittee shall keep records of all conducted maintenance. The permittee shall also meet the requirements of 40 CFR Part 1068, Subparts A through D, as applicable. Any adjustments made to the engine's settings which are in accordance with the manufacturer's instructions shall not cause the engine to be considered out of compliance.

(b) If the certified engine is not operated and maintained according to the manufacturer's emission related instructions, then the engine shall not be considered a "certified engine". In this circumstance, the permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance. The permittee shall also maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; however no performance testing is required.

(Ref.: 40 CFR 60.4243(a)(1) and (a)(2)(i))

5.8 For Emission Point AA-004, the permittee shall maintain the records outlined in paragraphs (a) through (d) below:

(a) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(b) Maintenance conducted on the engine.

(c) If the engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.

(d) If the engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.

(Ref.: 40 CFR 60.4245(a))

5.9 For Emission Points AA-027 and AA-028, in order to demonstrate compliance with Subpart ZZZZ, the permittee shall operate and maintain the engines according to the manufacturer's emission-related written instructions or develop an engine specific maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(Ref.: 40 CFR 63.6625(e)(8), 63.6640(a), and Item 9 of Table 6)

5.10 For Emission Points AA-027 and AA-028, the permittee shall minimize the engines' time spent at idle during startup and minimize the engines' startup time to a period needed for appropriate and safe loading of each engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup shall apply.

(Ref.: 40 CFR 63.6625(h))

5.11 For Emission Points AA-027 and AA-028, the permittee shall maintain the records outlined in paragraphs (a) through (d) below:

(a) A copy of each notification and report that was submitted to comply with Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).

(b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment).

(c) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).

(d) Records of the required maintenance specified in Condition 5.8 in order to demonstrate that you operated and maintained the engines according to the required maintenance plan.

The permittee shall keep all records in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). The permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record and shall keep each record readily accessible in hard

copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).

(Ref.: 40 CFR 63.6655(a, d, and e) and 63.6660)

SECTION 6
REPORTING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Reporting Requirement
AA-000	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.1	Report permit deviations within five (5) working days.
		6.2	Submit certified annual monitoring report.
		6.3	All documents submitted to MDEQ shall be certified by a Responsible Official.

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

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

6.2 Except as otherwise specified herein, the permittee shall submit a certified annual synthetic minor monitoring report postmarked no later than 31st of January for the preceding calendar year. This report shall address any required monitoring specified in the permit. Specifically, this report shall include all required recordkeeping data specified in Condition 5.3 and Condition 5.5. All instances of deviations from permit requirements must be clearly identified in the report. Where no monitoring data is required to be reported and/or there are no deviations to report, the report shall contain the appropriate negative declaration.

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

6.3 Any document required by this permit to be submitted to the MDEQ shall contain a certification signed by a responsible official stating 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. 2.2.B(11).)