# STATE OF MISSISSIPPI
# AIR POLLUTION CONTROL PERMIT

## TO CONSTRUCT AIR EMISSIONS EQUIPMENT

**THIS CERTIFIES THAT**

Venture Oil and Gas Inc, Jernigan 6-10 No 1 Facility
Well Road off of Smith County Road 1C
Taylorsville, Mississippi
Smith County

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with 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.

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**

_____

**AUTHORIZED SIGNATURE**
**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Issued:_____** **Permit No.: 2500-00095**

Draft/Proposed

## 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. Any activities not identified in the application are not authorized by this permit.

   (Ref.: Miss. Code Ann. 49-17-29 1.b)

3. 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 operating without a valid permit pursuant to State Law.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(5).)

4. It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D(6).)

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 the 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 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).)

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

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(c).)

9. 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).)

10. Design and Construction Requirements: The stationary source shall be designed and constructed so as to operate without causing a violation of an Applicable Rules and Regulations, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A.)

11. Solids Removal: The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may 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)

12. Diversion and Bypass of Air Pollution Controls: The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed 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.)

13. Fugitive Dust Emissions from Construction Activities: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A(4).)

14. Right of Entry: The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon 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 emissions.

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

15. Permit Modification or Revocation: After notice and opportunity for a hearing, the Permit Board may modify the permit or revoke it in whole or in part for good cause shown including, but not limited to:

    a) Persistent violation of any of the 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.)

16. Public Record and Confidential Information: 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)

17. Permit Transfer: This permit shall not be transferred except upon approval of the Permit Board.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.16.B.)

18. Severability: The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the 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).)

19. Permit Expiration: The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(1).)

20. Certification of Construction: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(3).)

21. Beginning Operation: Except as prohibited in Section 1, Condition 24 of this permit, after certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by 11 Miss. Admin. Code Pt. 2, R. 2.13.G.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(4).)

22. Application for a Permit to Operate: Except as otherwise specified in Section 1, Condition 24 of this permit, the application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon certification of construction, unless the permittee specifies differently in writing.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(5).)

23. Operating Under a Permit to Construct: Except as otherwise specified in Section 1, Condition 24 of this permit, upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(6).)

24. Application Requirements for a Permit to Operate for Moderate Modifications: For moderate modifications that require contemporaneous enforceable emissions reductions from more than one emission point in order to "net" out of PSD/NSR, the applicable Title V Permit to Operate or State Permit to Operate must be modified prior to beginning operation of the modified facilities.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(7).)

25. General Duty: All air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

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

26. Deviation Reporting: 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(10).)

27. 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).)

## B. GENERAL NOTIFICATION REQUIREMENTS

1. Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(2).)

2. The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(3).)

3. Upon the completion of construction or installation of an approved stationary source or modification, and prior to commencing operation, the applicant shall notify the Permit Board that construction or installation was performed in accordance with the approved plans and specifications on file with the Permit Board.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(1) and (3).)

4. The Permit Board shall be promptly notified in writing of any change in construction from the previously approved plans and specifications or permit. If the Permit Board determines the changes are substantial, it may require the submission of a new application to construct with "as built" plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an "as built" application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(2).)

## SECTION 2
## EMISSION POINT DESCRIPTION

The permittee is authorized to construct and operate, upon certification of construction, air emissions equipment, as described in the following table.

| Emission Point | Description |
|---|---|
| AA-001 | Flare (59.71 MMBTU/hr, field natural gas-fired) |
| AA-002 | 165 hp field propane or produced gas-fired spark ignition engine for power oil pump (pre-2006) |
| AA-003 | Equipment Leaks |
| AA-004 | High Pressure Separator with emissions routed to the control flare (AA-001) |
| AA-005 | Low Pressure Separator with emissions routed to the control flare (AA-001) |
| AA-006 | Heater Treater Unit (0.5 MMBTU/hr, field natural gas-fired burner) with emissions routed to the control flare (AA-001) |
| AA-007 | 330-gallon Methanol Storage Tank, 250-gallon Anti-foam Storage Tank, 250-gallon Emulsion Breaker Storage Tank, 55-gallon Corrosion Inhibitor Storage Tank, 250-gallon Propane Storage Tanks |
| AA-008 | 21,000-gallon Crude Oil Storage Tank, Three (3) 16,800-gallon Crude Oil Storage Tanks, 16,800-gallon Produced Water Tank, with emissions routed to control flare (AA-001) |
| AA-009 | Truck Loading |

## SECTION 3
## EMISSION LIMITATIONS AND STANDARDS

| Emission Point | Applicable Requirement | Condition Number(s) | Pollutant/ Parameter | Limitation/Standard |
|---|---|---|---|---|
| Facility Wide | 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). | 3.1 | VOC | ≤ 95.0 tpy |
| | | 3.2 | HAP | ≤ 24.0 tpy of total HAP, ≤ 9.0 tpy of single HAP |
| | | 3.3 | Fuel | Combust only propane or produced field gas |
| | 11 Miss. Admin. Code Pt. 2, R. 1.3.A. | 3.4 | Opacity | ≤ 40% |
| | 11 Miss. Admin. Code Pt. 2, R. 1.3.B. | 3.5 | Equivalent Opacity | ≤ 40% |
| | 11 Miss. Admin. Code Pt. 2, R. 1.4.B(2). | 3.6 | $H_2S$ | One (1) grain per 100 standard cubic feet |
| AA-001 | 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(b). | 3.7 | $PM/PM_{10}$ (filterable only) | $E = 0.8808 \times I^{-0.1667}$ |
| | 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). | 3.8 | Control Efficiency | Demonstrate a control efficiency of 98% by operating according to 40 CFR 60.18 |
| AA-002 AA-006 | 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a). | 3.9 | $PM/PM_{10}$ (filterable only) | ≤ 0.6 lbs/MMBTU |
| | 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1). | 3.10 | $SO_2$ | ≤ 4.8 lbs/MMBTU |
| AA-002 | 40 CFR 63, Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines)<br>40 CFR 63.6585 and 63.6665, Subpart ZZZZ | 3.11 | HAP | Applicability |
| AA-003 | 40 CFR 60, Subpart OOOOa (Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015)<br>40 CFR 60.5365a(i), Subpart OOOOa | 3.12 | VOC | Applicability |
| | 40 CFR 60.5397a(a-g), Subpart OOOOa | 3.13 | | Develop a fugitive emission monitoring plan |
| | 40 CFR 60.5397a(h), Subpart OOOOa | 3.14 | | Fugitive emission source repair or replacement requirements |
| | 40 CFR 60.5425a and Table 3, Subpart OOOOa | 3.15 | General Provisions | Applicability |
| AA-004 AA-005 AA-006 AA-008 | 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). | 3.16 | VOC | Route all produced gas to the flare for control |

3.1 For the entire facility, the permittee shall not emit more than 95.0 tons per year (tpy) of volatile organic compounds (VOC), determined for each consecutive 12-month period on a rolling monthly basis.

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

3.2 For the entire facility, the permittee shall not emit more than 24.0 tons per year (tpy) of total combined hazardous air pollutants (HAPs) and no more than 9.0 tons per year (tpy) of any single hazardous air pollutant (HAP) as determined for each consecutive 12-month period.

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

3.3 For the entire facility, the permittee shall only combust propane or produced field gas in all combustion units operating at the facility.

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

3.4 For the entire facility, 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 period 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% 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 any one hours.

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

3.5 For the entire facility, 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 3.4. This shall not apply to vision obscuration caused by uncombined water droplets.

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

3.6 For the entire facility, 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).)

3.7 For Emission Point AA-001, the permittee shall not exceed the maximum permissible emission rate of ash and/or particulate matter from fossil fuel burning installations of equal to or greater than 10 million BTU per hour heat input as determined by the

relationship $E = 0.8808 \times I^{-0.1667}$, 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. 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)(b).)

3.8 For Emission Point AA-001, the permittee shall demonstrate a control efficiency of at least 98% by operating the control flare according to the requirements of 40 CFR 60.18(b), Subpart A, and Condition 4.2 at all times when receiving gas streams.

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

3.9 For Emission Points AA-002 and AA-006, the permittee shall not exceed the maximum permissible emission rate of ash and/or particulate matter of 0.6 pounds per million BTU per hour heat input from fossil fuel burning installations of less than 10 million BTU per hour heat input.

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

3.10 For Emission Points AA-002 and AA-006, the permittee shall not exceed the maximum discharge of sulfur oxides of 4.8 pounds (measured as sulfur dioxide) per million BTU heat input from fuel burning installations in which the fuel is burned to produce heat or power by indirect heat transfer.

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

3.11 For Emission Point AA-002, the permittee is subject to and shall comply with all applicable requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) and the General Provisions (40 CFR 63, Subpart A) as outlined in Table 8 of 40 CFR 63, Subpart ZZZZ.

(Ref.: 40 CFR 63.6585 and 63.6665, Subpart ZZZZ)

3.12 For Emission Point AA-003, the permittee is subject to and shall comply with all applicable requirements of the Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015 (40 CFR 60, Subpart OOOOa) and the General Provisions (40 CFR 60, Subpart A).

(Ref.: 40 CFR 60.5365a(i), Subpart OOOOa)

3.13 For Emission Point AA-003, the permittee shall demonstrate compliance with 40 CFR 60, Subpart OOOOa, by monitoring all fugitive emission components, as defined in 40 CFR 60.5430a. For the purposes of this condition, fugitive emissions are defined as: Any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of 500 ppm or greater using Method 21.

The permittee shall develop an emissions monitoring plan that covers the collection of fugitive emissions components within each company-defined area. This monitoring plan shall include the information specified in paragraphs (a) through (l) below:

(a) The permittee shall conduct an initial monitoring survey within 60 days of the startup of production, as defined in 40 CFR 60.5430a, for each collection of

fugitive emissions components at a new well site. A monitoring survey shall be conducted at least semiannually after the initial survey. Consecutive semiannual monitoring surveys must be conducted at least four (4) months apart. Each monitoring survey shall observe each fugitive emissions component, as defined in 40 CFR 60.5430a, for fugitive emissions.

(b) The permittee shall specify the technique used in determining the presence of fugitive emissions (i.e. Method 21 from 40 CFR 60, Appendix A-7, or optical gas imaging).

(c) The permittee shall include the manufacturer and model number of all fugitive emission detection equipment used.

(d) The permittee shall include the procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected. This includes timeframes for fugitive emission components that are unsafe to repair. At minimum, the repair schedule shall meet the requirements of Condition 3.14.

(e) The permittee shall include procedures and timeframes for verifying fugitive emission component repairs.

(f) The permittee shall specify what records will be kept and the length of time these records will be kept.

(g) If the permittee utilizes optical gas imaging, the monitoring plan shall include the information specified in subparagraphs (1) through (7) below:

(1) Verification that the optical gas imaging equipment is capable of imaging gases in the spectral range for the compound of highest concentrations in the potential fugitive emissions. The optical gas imaging equipment must be capable of imaging a gas that is half methane, half propane, at a concentration of 10,000 parts per million (ppm) at a flow rate of ≤ 60 grams per hour (g/hr) from a quarter inch diameter orifice. This verification is an initial verification, and may either be performed by the facility, by the manufacturer, or by a third party. For the purposes of complying with the fugitive emissions monitoring program with optical gas imaging, a fugitive emission is defined as any visible emissions observed using optical gas imaging.

(2) Procedures for a daily verification check.

(3) Procedures for determining the permittee's maximum viewing distance from the equipment and procedures for how the permittee will ensure that this distance is maintained.

(4) Procedures for determining maximum wind speed during which monitoring can be performed and procedures for how the permittee will ensure monitoring occurs only at wind speeds below this threshold.

(5) Procedures for conducting surveys, including how the permittee will ensure an adequate thermal background is present in order to view potential fugitive emissions, how the permittee will deal with adverse

monitoring conditions, such as wind, and how the permittee will deal with interferences (e.g., steam).

(6) Specification of the training and experience needed prior to performing surveys.

(7) Procedures for calibration and maintenance. At a minimum, procedures must comply with those recommended by the manufacturer.

(h) If the permittee utilizes Method 21 from 40 CFR 60, Appendix A-7, the monitoring plan shall include the information specified in subparagraphs (1) and (2) below. For the purposes of complying with the fugitive emissions monitoring program using Method 21, a fugitive emission is defined as an instrument reading of 500 ppm or greater.

(1) Verification that all monitoring equipment meets the requirements specified in Section 6.0 of Method 21 from 40 CFR 60, Appendix A-7. For purposes of instrument capability, the fugitive emissions definition shall be 500 ppm or greater methane using a FID-based instrument. If the permittee uses an analyzer other than an FID-based instrument, the permittee shall develop a site specific fugitive emission definition that would be equivalent to 500 ppm methane using an FID-based instrument (e.g., 10.6 eV PID with a specified isobutylene concentration as the fugitive emission definition would provide equivalent response to the compound of interest).

(2) Procedures for conducting surveys. At a minimum, these procedures shall ensure that the surveys comply with the relevant sections of Method 21 from 40 CFR 60, Appendix A-7, including Section 8.3.1.

(i) A site map.

(j) A defined observation path that ensures that all fugitive emissions components are within sight of the path. The observation path must account for interferences.

(k) If the permittee utilizes Method 21, the plan shall also include a list of fugitive emissions components to be monitored and the method for determining location of fugitive emissions components to be monitored in the field (e.g., tagging, identification on a process and instrumentation diagram, etc.)

(l) The plan shall also include the written plan developed for all of the fugitive emission components designated as difficult-to-monitor in accordance with 40 CFR 60.5397(g)(3)(i), Subpart OOOOa, and the written plan for fugitive emission components designated as unsafe-to-monitor in accordance with 40 CFR 60.5397(g)(3)(ii).

(Ref.: 40 CFR 60.5397a(a-g), Subpart OOOOa)

3.14 For Emission Point AA-003, the permittee shall repair or replace each identified source of fugitive emissions in accordance with paragraphs (a) through (c) below:

(a) Each identified source of fugitive emissions shall be repaired or replaced as soon as practicable, but no later than 30 calendar days after detection of the fugitive emissions.

(b) If the repair or replacement is technically infeasible, would require a well shutdown or well shut-in, or would be unsafe to repair during operation of the unit, the repair or replacement must be completed during the next well shutdown, well shut-in, after an unscheduled, planned or emergency vent blowdown or within two (2) years, whichever is earlier.

(c) Each repaired or replaced fugitive emissions component must be resurveyed as soon as practicable, but no later than 30 days after being repaired, to ensure that there are no fugitive emissions. This survey shall comply with the requirements of subparagraphs (1) through (4), as applicable:

(1) For repairs that cannot be made during the monitoring survey when the fugitive emissions are initially found, the operator may resurvey the repaired fugitive emissions components using either Method 21 or optical gas imaging within 30 days of finding such fugitive emissions.

(2) For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph must be taken of that component or the component must be tagged for identification purposes. The digital photograph must include the date that the photograph was taken, must clearly identify the component by location within the site (e.g., the latitude and longitude of the component or by other descriptive landmarks visible in the picture).

(3) If the permittee utilizes Method 21 to resurvey the repaired fugitive emissions components, then the fugitive emissions component is considered repaired when the Method 21 instrument indicates a concentration of less than 500 ppm above background or when no soap bubbles are observed when the alternative screening procedures specified in Section 8.3.3 of Method 21 are used. The permittee shall utilize the Method 21 monitoring requirements specified in Condition 3.13(h)(2) or the alternative screening procedures specified in Section 8.3.3 of Method 21.

(4) If the permittee utilizes optical gas imaging to resurvey the repaired fugitive emissions components, then the fugitive emissions component is considered repaired when the optical gas imaging instrument shows no indication of visible emissions. The permittee shall utilize the optical gas monitoring requirements specified in Condition 3.13(g).

(Ref.: 40 CFR 60.5397a(h), Subpart OOOOa)

3.15 For Emission Point AA-003, the permittee must comply with the General Provisions of 40 CFR 60.1 through 40 CFR 60.19 except for 40 CFR 60.11.

(Ref.: 40 CFR 60.5425a and Table 3, Subpart OOOOa)

3.16 For Emission Points AA-004, AA-005, AA-006, and AA-008, the permittee shall route all produced gas to the flare (Emission Point AA-001) for control.

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

## SECTION 4
## WORK PRACTICES

| Emission Point | Applicable Requirement | Condition Number(s) | Pollutant/ Parameter | Work Practice |
|---|---|---|---|---|
| Facility Wide | 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). | 4.1 | VOC | Operate all equipment as efficiently as possible and perform routine maintenance |
| AA-001 | | 4.2 | | Control flare operating requirements |
| AA-002 | 40 CFR 63, Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines)<br>40 CFR 63.6603(a) and Table 2d Item #7, Subpart ZZZZ | 4.3 | Operation and Maintenance | Change oil and filter and inspect spark plugs and hoses |
| | 40 CFR 63.6625(e) and Table 6 Item #9, Subpart ZZZZ | 4.4 | | Maintenance plans |
| | 40 CFR 63.6605(a) and (b), Subpart ZZZZ | 4.5 | | General requirements for complying |
| | 40 CFR 63.6625(h), Subpart ZZZZ | 4.6 | Startup | Minimize time spent at idle |

4.1 For the entire facility, the permittee shall operate all air emissions equipment as efficiently as possible in order to minimize the emissions of air pollutants. 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 below:

(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 Point AA-002, the permittee shall comply with the following, except during periods of startup:

(a) Change oil and filter every 1,440 hours of operation or annually, whichever comes first or perform an oil analysis at the same frequency in order to extend the oil change requirement in accordance with 40 CFR 63.6625(j), Subpart ZZZZ;

(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.

(Ref.: 40 CFR 63.6603(a) and Table 2d Item #7, Subpart ZZZZ)

4.4 For Emission Point AA-002, the permittee shall comply with either of the following:

(a) Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

(b) Develop and follow a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

(Ref.: 40 CFR 63.6625(e) and Table 6 Item #9, Subpart ZZZZ)

4.5 For Emission Point AA-002, the permittee shall be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR 63, Subpart ZZZZ, at all times. At all times the permittee must operate and maintain the 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.

(Ref.: 40 CFR 63.6605(a) and (b), Subpart ZZZZ)

4.6 For Emission Point AA-002, the permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

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

## SECTION 5
## MONITORING AND RECORDKEEPING REQUIREMENTS

| Emission Point | Applicable Requirement | Condition Number(s) | Pollutant/ Parameter | Monitoring/Recordkeeping Requirement |
|---|---|---|---|---|
| Facility Wide | 11 Miss. Admin. Code Pt. 2, R. 2.9. | 5.1 | Recordkeeping | Maintain records for a minimum of five (5) years |
| | 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11). | 5.2 | Produced Gas | Perform biennial natural gas analysis |
| | | 5.3 | Recordkeeping | Facility wide recordkeeping requirements |
| AA-001 | | 5.4 | VOC | Control flare monitoring requirements |
| | | 5.5 | | Control flare recordkeeping requirements |
| AA-002 | 40 CFR 63, Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines)<br>40.63.6655(d) and (e), and 63.6625(j), Subpart ZZZZ | 5.6 | HAP | Recordkeeping |
| AA-003 | 40 CFR 60, Subpart OOOOa (Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015)<br>40 CFR 60.5410a(j), Subpart OOOOa | 5.7 | VOC | Demonstration of initial compliance |
| | 40 CFR 60.5415a(h), Subpart OOOOa | 5.8 | | Demonstration of continuous compliance |
| | 40 CFR 60.5420a(c), Subpart OOOOa | 5.9 | | Recordkeeping requirements |

5.1 For the entire facility, 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 For the entire facility, 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, the permittee shall maintain the following records in order to demonstrate compliance with the limitations specified in Section 3:

(a) The amount of VOC, individual HAP, and total HAPs emitted, in tons per year, on a monthly basis 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 natural gas analysis conducted on the produced natural gas 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 observations on the flare.

(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 subparagraphs (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 observations 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, and 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 Point AA-002, the permittee shall maintain the following records in accordance with Condition 5.1:

(a) The maintenance plan required in Condition 4.4 to show continuous compliance with each limitation that applies;

(b) Records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE according to the maintenance plan;

(c) If the permittee elects to utilize the oil analysis program in Condition 4.3, the permittee shall keep records of the parameters analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(Ref.: 40 CFR 63.6655(d) and (e) and 63.6625(j), Subpart ZZZZ)

5.7 For Emission Point AA-003, the permittee shall demonstrate initial compliance with the fugitive emission standards for each collection of fugitive emissions components at a well site by complying with the requirements of paragraphs (a) through (e) below. The initial compliance period begins upon initial startup and ends no later than one (1) year after the initial startup date. The initial compliance period may be less than one full year.

(a) The permittee shall develop a fugitive emissions monitoring plan as required in Condition 3.13.

(b) The permittee shall conduct an initial monitoring survey as required in Condition 3.13(a).

(c) The permittee shall maintain the records specified in Condition 5.9.

(d) The permittee shall repair each identified source of fugitive emissions for each affected facility as required in Condition 3.14.

(e) The permittee shall submit the initial annual report for each collection of fugitive emissions components at a well site as required in Condition 6.4.

(Ref.: 40 CFR 60.5410a(j), Subpart OOOOa)

5.8 For Emission Point AA-003, the permittee the permittee shall demonstrate continuous compliance with the fugitive emission standards for each collection of fugitive emissions components at a well site by complying with the requirements of paragraphs (a) through (d) below:

(a) The permittee shall conduct periodic monitoring surveys as required in Condition 3.13(a).

(b) The permittee shall repair or replace each identified source of fugitive emissions as required in Condition 3.14.

(c) The permittee shall maintain the records specified in Condition 5.9.

(d) The permittee shall submit annual reports for the collection of fugitive emissions components at a well site as required in Condition 6.4.

(Ref.: 40 CFR 60.5415a(h), Subpart OOOOa)

5.9 For Emission Point AA-003, the permittee shall maintain the records identified in 40 CFR 60.7(f) and in all applicable paragraphs of 40 CFR 60.5420a(c)(1) through (c)(16), specifically 40 CFR 5420a(c)(15). All required records must be maintained either on-site or at the nearest local field office for at least five (5) years. Any required records which are submitted electronically via EPA's CDX may be maintained in electronic format.

(Ref.: 40 CFR 60.5420a(c), Subpart OOOOa)

## SECTION 6
## REPORTING REQUIREMENTS

| Emission Point | Applicable Requirement | Condition Number(s) | Reporting Requirement |
|---|---|---|---|
| Facility Wide | 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 or Duly Authorized Representative |
| AA-003 | 40 CFR 60, Subpart OOOOa (Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015)<br>40 CFR 60.5420a(b), Subpart OOOOa | 6.4 | Reporting requirements |

6.1 For the entire facility, 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 For the entire facility, 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 the 12-month rolling totals of VOCs and HAPs, in tons per year, for the previous calendar year. Furthermore, this report shall include the results of the required field gas analysis during the years on which the gas analysis occurs. 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 For the entire facility, any document required by this permit to be submitted to the MDEQ, the permittee shall include a certification signed by a responsible official or duly authorized representative 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).)

6.4 For Emission Point AA-003, the permittee shall submit annual reports containing the information specified in 40 CFR 60.5420a(b)(1), (7), and (11). The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to Condition 5.7. Subsequent annual reports are due in accordance with the annual reports required in Condition 6.2. If the permittee owns or operates more than one affected facility, the permittee may submit one report for multiple affected facilities

provided the report contains all of the information required as specified in 40 CFR 60.5420a(b)(1) through (8), as applicable, except as provided in 40 CFR 60.5420a(b)(13).

The permittee must submit reports to the EPA via the CEDRI (CEDRI can be accessed through the EPA's CDX at https://cdx.epa.gov/). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for at least 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified 40 CFR 60, Subpart OOOOa, regardless of the method in which the reports are submitted.

(Ref.: 40 CFR 60.5420a(b), Subpart OOOOa)