

STATE OF MISSISSIPPI AIR POLLUTION CONTROL PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Renaissance Petroleum Company LLC, Ulmer 28-1 Number 1 Well
County Road 1519
Bay Springs, Mississippi
Jasper 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: JUN 27 2018

Permit No.: 1300-00084

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-000	Oil and Gas Production
AA-001	1.0 MMBTU/hr Continuous Burn Flare (FL-1) with 98% control efficiency.
AA-002	0.5 MMBTU/hr Natural Gas Fired Heater Treater (HT-BS-1) routed to Emission Point AA-001
AA-003	0.5 MMBTU/hr Natural Gas Fired Line Heater (LH-BS-1)
AA-004	150 hp Natural Gas Fired Pump Engine (ICE-1). 4SLB. Manufactured in 1991. Subject to MACT Subpart ZZZZ.
AA-005 AA-006 AA-007	Oil Storage Tanks (OST-1, OST-2, PT-1) emissions routed to Emission Point AA-001. Subject to NSPS Subpart OOOO
AA-008	Saltwater Storage Tank (WST-1)
AA-009	Storage Tank (OST-3)
AA-010	Fugitive Emissions (FUG-1)
AA-011	Tank Truck Loading Losses (TT-LL-1)

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. 2.2.B(10).	3.1	Fuel	Combust only produced natural gas
	40 CFR 60, Subpart OOOO – New Source Performance Standard for Crude Oil and Natural Gas Production, Transmission, and Distribution 40 CFR 60.5365	3.2	VOC	Applicability
	11 Miss. Admin. Code Pt. 2, R. 1.4.B(2).	3.3	H ₂ S	1 grain/100 dscf
	11 Miss. Admin. Code Pt. 2, R. 1.3.B.	3.4	Opacity	< 40%
AA-001	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.5	VOC/HAP	Control flare operating requirements
AA-002 AA-003	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.6	PM (filterable only)	0.6 lb/MMBTU
	11 Miss. Admin. Code Pt. 2, R. 1.3.B.	3.4	Opacity	< 40%
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.7	SO ₂	4.8 lb/MMBTU
AA-002 AA-005 AA-006 AA-007	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).	3.8	VOC	Emissions shall be vented to the flare (Emission Point AA-001) at all times.
AA-004	40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines 40 CFR 63.6580, 63.6585(a) and (c), and 63.6590(a)(1)(iii)	3.9	HAP	Applicability
	40 CFR 63.6603(a), 63.6625(h) and (j), and Item 7 of Table 2d, Subpart ZZZZ	3.10		(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;

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limitation/Standard
				and (c) Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.
AA-004	40 CFR 63.6605 and 63.6625(e)(7), Subpart ZZZZ	3.11	HAP	Compliance at all times and operate in a manner consistent with safety and good air pollution control practices for minimizing emissions.
AA-005 AA-006 AA-007	40 CFR 60.5365(e), Subpart OOOO	3.12	VOC	Applicability – Group 2 Storage Vessels
	40 CFR 60.5370(b), Subpart OOOO	3.13		Compliance at all times
	40 CFR 60.5395(a)(2), (c), and (d), Subpart OOOO	3.14		Reduce VOC emissions by 95%
	40 CFR 60.5395(e)(1), Subpart OOOO	3.15		Control Requirements
	40 CFR 60.5395(f), Subpart OOOO	3.16		Requirements for Group 2 storage vessels removed from service or returned to service
	40 CFR 60.5411(b), Subpart OOOO	3.17		Cover Requirements
	40 CFR 60.5411(c), Subpart OOOO	3.18		Closed Vent System Requirements

3.1 For the Entire Facility, the permittee shall combust only produced natural gas.

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

3.2 The permittee is subject to and shall comply with all applicable requirements of the New Source Performance Standards for Crude Oil and Natural Gas Production, Transmission, or Distribution (40 CFR 60, Subpart OOOO) and the General Provisions (40 CFR 60, Subpart A). If any equipment listed in 40 CFR 60.5365(a) through (h) are constructed at this facility, the permittee must comply with the applicable requirements of 40 CFR 60, Subpart OOOO.

(Ref.: 40 CFR 60.5365, Subpart OOOO)

3.3 For Emission Point AA-000, no person shall cause or permit the emission of any gas stream which contains hydrogen sulfide 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 not less than 1600°F for a period of not less than 0.5 seconds, or processed in such 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).)

- 3.4 For Emission Points AA-000, 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. This shall not apply to vision obscuration caused by uncombined water droplets.

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

- 3.5 For Emission Point AA-001, the permittee shall operate the control flare according to the requirements specified in 40 CFR 60.18(b) and 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 fifteen (15) 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).)

- 3.6 For Emission Points AA-002 and AA-003, the maximum permissible emissions of ash and/or particulate matter from fossil fuel burning installations 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).)

- 3.7 For Emission Points AA-002 and AA-003, 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).)

- 3.8 For Emission Points AA-002, AA-005, AA-006, and AA-007, emissions shall be vented to the flare (Emission Point AA-001) at all times.

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

- 3.9 For Emission Point AA-004, the permittee is subject to and shall comply with the applicable requirements of the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) and the General Provisions (40 CFR 63, Subpart A). For the purpose of this subpart, this engine is an existing non-emergency, non-black start 4 stroke lean burn stationary engine with a site rating less than 500 brake horsepower located at an area source of HAP emissions.

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

- 3.10 For Emission Point AA-004, the permittee shall comply with the maintenance requirements contained in (a) through (c) except during periods of startup. During periods of startup, the permittee shall minimize the time spent at idle and minimize each engine's startup time to a period needed for appropriate and safe loading of each engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.

- (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 may elect to utilize an oil analysis program as described in 40 CFR 63.6625(j) in order to extend the specified oil change requirement. If an engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the above schedule, or if performing the management practice on this schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until such time the emergency is over or the unacceptable risk has abated. If delayed, the management practices should be completed as soon as practicable after the reason for the delay has ended.

(Ref.: 40 CFR 63.6603(a), 63.6625(h) and (j), and Item 7 of Table 2d, Subpart ZZZZ)

- 3.11 For Emission Point AA-004, the permittee shall comply with the following:

- (a) Shall be in compliance with Subpart ZZZZ at all times.
- (b) At all times the permittee shall operate and maintain the stationary RICE, including associated air pollution control equipment and monitoring equipment according to the manufacturer's emission-related written instructions or develop your own 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. The general duty to minimize emissions does not require you 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 and 63.6625(e)(7), Subpart ZZZZ)

- 3.12 For Emission Points AA-005, AA-006, and AA-007, the permittee is subject to the storage vessel requirements of Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction commenced after August 23, 2011, and on or before September 18, 2015 (40 CFR 60, Subpart OOOO) and the General Provisions (40 CFR 60, Subpart A). These units are considered Group 2 storage vessels.

(Ref.: 40 CFR 60.5365(e), Subpart OOOO)

- 3.13 For Emission Points AA-005, AA-006, and AA-007, at all times, including periods of startup, shutdown, and malfunction, the permittee shall maintain and operate the affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating 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, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(Ref.: 40 CFR 60.5370(b), Subpart OOOO)

- 3.14 For Emission Points AA-005, AA-006, and AA-007, the permittee shall reduce VOC emissions by 95 percent.

(Ref.: 40 CFR 60.5395(a)(2), (c), and (d)(1), Subpart OOOO)

- 3.16 For Emission Points AA-005, AA-006, and AA-007, the permittee shall equip each storage vessel with a cover that meets the requirements of Condition 3.18 (40 CFR 60.5411(b)) is connected through a closed vent system that meets the requirements of

Condition 3.19 (40 CFR 60.5411(c)) and all emissions must be routed to the flare which meets the requirements of Condition 3.5.

(Ref.: 40 CFR 60.5395(e)(1), Subpart OOOO)

3.16 For Emission Points AA-005, AA-006, and AA-007, the permittee shall comply with the following:

- (a) If a Group 2 storage vessel is removed from service, the permittee shall comply with 40 CFR 63.5395(f)(1) through (3).
- (b) If a Group 2 storage vessel is returned to service, the permittee shall determine its affected facility status as provided in 40 CFR 60.5365(e).

(Ref.: 40 CFR 60.5395(f), Subpart OOOO)

3.17 For Emission Points AA-005, AA-006, and AA-007, the permittee shall comply with the following cover requirements for storage vessels:

- (a) The cover and all openings on the cover (*e.g.*, access hatches, sampling ports, pressure relief valves and gauge wells) shall form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessel.
- (b) Each cover opening shall be secured in a closed, sealed position (*e.g.*, covered by a gasketed lid or cap) whenever material is in the unit on which the cover is installed except during those times when it is necessary to use an opening as follows:
 - (1) To add material to, or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the unit following changes in the level of the material in the unit);
 - (2) To inspect or sample the material in the unit;
 - (3) To inspect, maintain, repair, or replace equipment located inside the unit; or
 - (4) To vent liquids, gases, or fumes from the unit through a closed-vent system designed and operated in accordance with the requirements of 40 CFR 60.5411(c) to a control device.
- (c) Each storage vessel thief hatch shall be equipped, maintained and operated with a weighted mechanism or equivalent, to ensure that the lid remains properly seated. The permittee shall select gasket material for the hatch based on composition of the fluid in the storage vessel and weather conditions.

(Ref.: 40 CFR 60.5411(b), Subpart OOOO)

3.18 For Emission Points AA-005, AA-006, and AA-007, the permittee shall comply with the following closed vent system requirements for storage vessels using a control device:

- (a) The permittee shall design the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device that meets the requirements specified in Condition 5.13 (40 CFR 60.5412(d)),
- (b) The permittee shall design and operate a closed vent system with no detectable emissions, as determined using olfactory, visual and auditory inspections.
- (c) The permittee shall meet the following requirements if the closed vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device.
 - (1) Except as provided in paragraph (ii), the permittee shall comply with either paragraph (A) or (B) for each bypass device.
 - (i) The permittee shall properly install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device to the atmosphere and that either sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device to the atmosphere. The permittee shall maintain records of each time the alarm is activated according to 40 CFR 60.5420(c)(8).
 - (ii) The permittee shall secure the bypass device valve installed at the inlet to the bypass device in the non-diverting position using a car-seal or a lock-and-key type configuration.
 - (2) Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to the requirements of paragraph (i).

(Ref.: 40 CFR 60.5411(c), Subpart OOOO)

SECTION 4
WORK PRACTICES

*THIS SECTION WAS INTENTIONALLY LEFT BLANK SINCE NO WORK PRACTICE
STANDARDS APPLY TO THIS PERMIT ACTION.*

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. 2.2.B(11).	5.1	VOC/HAP	Annual Natural Gas Analysis
		5.2		Monthly Recordkeeping
		5.3		Operate Efficiently
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	40 CFR 63.6655(a) and (e), Subpart ZZZZ	5.6	HAP	Subpart ZZZZ Recordkeeping
AA-005 AA-006 AA-007	40 CFR 60.5410(h), Subpart OOOO	5.7	VOC/HAP	Initial Compliance
	40 CFR 60.5412(d), Subpart OOOO	5.8		
	40 CFR 60.5416(a), Subpart OOOO	5.9		Performance Test Exemption
	40 CFR 60.5415(e)(3), Subpart OOOO	5.10		Demonstrate Continuous Compliance
	40 CFR 60.5416(c), Subpart OOOO	5.11		Cover and closed vent system Inspections
	40 CFR 60.5417(h), Subpart OOOO	5.12		Demonstrate Continuous Compliance
	40 CFR 60.5420(c)(5), (6), (7), (8), (13), and (14), Subpart OOOO	5.13		Recordkeeping
Entire Facility	11 Miss. Admin. Code Pt. 2, R. 2.9.	5.14		Maintain records for a minimum of 5 years

- 5.1 For the Entire Facility, the permittee shall conduct an annual natural gas analysis which shall determine the following: hydrogen sulfide concentration, sulfur content, methane concentration (volume), gross heating value, molecular weight, specific gravity, benzene concentration, ethylbenzene concentration, toluene concentration, and xylene concentration. 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).)

- 5.2 For the Entire Facility, the permittee shall keep the following records:

- (1) Record the tons/year of volatile organic compounds, total hazardous air pollutants and individual hazardous air pollutants on 12-month rolling total. This record shall demonstrate compliance with the operating limitations utilizing gas flow measurement, gas analysis, calculation and other relevant information.
- (2) Results of semi-annual analysis conducted on produced natural gas including hydrogen sulfide, sulfur content, methane concentration (volume), gross heating value, molecular weight, and specific gravity.
- (3) Calculated cubic feet of natural gas burned, as fuel, monthly
- (4) Barrels of crude oil and water produced, monthly
- (5) Cubic feet of natural gas produced, monthly
- (6) Cubic feet of natural gas destructed in the flare, monthly
- (7) Log/record of monthly visible emission observation on the flare.

The permittee shall maintain a copy of this record on site for at least five years and shall make then available upon request by the Mississippi Department of Environmental Quality (MDEQ) personnel.

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

- 5.3 For the Entire Facility, 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, 2.2.B(11).)

- 5.4 For Emission Point AA-001, the permittee shall comply with the following monitoring requirements:

- (a) The permittee shall monitor presence of the flare pilot flame or auto ignitor by one of the following methods:
 - (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) The permittee shall perform monthly visual observations of the flare for a minimum of fifteen (15) 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 3.4, 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.
- (c) In order to demonstrate compliance with Condition 3.5, the permittee shall perform an annual flare 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:

- (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. 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 annual flare 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-004, the permittee shall keep the following records:

- (a) A copy of each notification and report that was submitted to comply with this subpart, 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) or the air pollution control and monitoring equipment.
- (c) Records of all required maintenance performed on the air pollution control and monitoring equipment.
- (d) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (e) The permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that it was operated and maintained according to the maintenance plan.

(Ref.: 40 CFR 66.6655(a) and (e), Subpart ZZZZ)

5.7 For Emission Points AA-005, AA-006, and AA-007, the permittee shall comply with the following:

- (a) Determine the potential VOC emission rate as specified in 40 CFR 60.5365(e).

- (b) Reduce VOC emissions in accordance with Condition 3.15 (40 CFR 60.5395(d)).
- (c) Submit the information required for the storage vessel affected facility as specified in Conditions 6.2 and 6.3 (40 CFR 60.5420(b)).
- (d) Maintain the records required for the storage vessel affected facility, as specified in Conditions 5.18, 5.19, 5.20, 5.21, and 5.22 (40 CFR 60.5420(c)(5) through (8) and 60.5420(c)(13)) for each storage vessel affected facility.

(Ref.: 40 CFR 60.5410(h), Subpart OOOO)

- 5.8 For Emission Points AA-005, AA-006, and AA-007, the permittee shall ensure that each enclosed combustion device is maintained in a leak free condition

(Ref.: 40 CFR 60.5412(d), Subpart OOOO)

- 5.9 For Emission Points AA-005, AA-006, and AA-007, the permittee is exempt from the requirements to conduct performance test and design analyses if using a flare that is designed and operated in accordance with Condition 3.5.

The permittee shall conduct the compliance determination using Method 22 of 40 CFR 60 Appendix A-7, to determine visible emissions.

(Ref.: 40 CFR 60.5413(a)(1), Subpart OOOO)

- 5.10 For Emission Points AA-005, AA-006, and AA-007, the permittee shall demonstrate continuous compliance according to the following for each storage vessel affected facility, for which you are using a control device or routing emissions to a process to meet the requirement of Condition 3.14 (40 CFR 60.5395(d)(1)):

- (a) Reduce VOC emissions as specified in Condition 3.15 (40 CFR 60.5395(d)).
- (b) Demonstrate continuous compliance with the performance requirements of Condition 5.9 (40 CFR 60.5412(d)) for each storage vessel affected facility using the procedure specified in paragraph (i) and either (ii) or (iii) below:
 - (1) Comply with Condition 5.11 (40 CFR 60.5416(c)) for each cover and closed vent system.
 - (2) Comply with Condition 5.12 (40 CFR 60.5417(h)) for each control device.
 - (3) Each closed vent system that routes emissions to a process must be operated as specified in Condition 3.18 (40 CFR 60.5411(c)(2)).

(Ref.: 40 CFR 60.5416(c), Subpart OOOO)

- 5.11 For Emission Points AA-005, AA-006, and AA-007, the permittee shall inspect each closed vent system according to the procedures and schedule specified in paragraphs (a), inspect each cover according to the procedures and schedule specified in paragraph (b),

and inspect each bypass device according to the procedures of paragraph (c). The permittee shall also comply with the requirements of paragraphs (d) through (g).

- (a) For each closed vent system, the permittee shall conduct an inspection at least once every calendar month as specified below:
 - (1) Maintain records of the inspection results as specified in Condition 5.19 (40 CFR 60.5420(c)(6)).
 - (2) Conduct olfactory, visual and auditory inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices.
 - (3) Monthly inspections must be separated by at least 14 calendar days.
- (b) For each cover, the permittee shall conduct inspections at least once every calendar month as specified below:
 - (1) Maintain records of the inspection results as specified in Condition 5.20 (40 CFR 60.5420(c)(7)).
 - (2) Conduct olfactory, visual and auditory inspections for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover, or between the cover and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case where the storage vessel is buried partially or entirely underground, the permittee shall inspect only those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (*e.g.*, fill ports, access hatches, gauge wells, etc.) and can be opened to the atmosphere.
 - (3) Monthly inspections must be separated by at least 14 calendar days.
- (c) For each bypass device, except as provided for in Condition 3.18 (40 CFR 60.5411(c)(3)(ii)), the permittee shall meet the following requirements:
 - (1) Properly install, calibrate and maintain a flow indicator at the inlet to the bypass device that could divert the stream away from the control device or process to the atmosphere. Set the flow indicator to trigger an audible alarm, or initiate notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device or process to the atmosphere. The permittee shall maintain records of each time the alarm is activated according to Condition 5.13 (40 CFR 60.5420(c)(8)).

- (2) If the bypass device valve installed at the inlet to the bypass device is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device. The permittee shall maintain records of the inspections and records of each time the key is checked out, if applicable, according to Condition 5.13 (40 CFR 60.5420(c)(8)).
- (d) In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable according to the requirements of paragraphs (i) through (iii), except as provided in paragraph (5).
 - (1) A first attempt at repair must be made no later than 5 calendar days after the leak is detected.
 - (2) Repair must be completed no later than 30 calendar days after the leak is detected.
 - (3) Grease or another applicable substance must be applied to deteriorating or cracked gaskets to improve the seal while awaiting repair.
- (e) Delay of repair of a closed vent system or cover for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, or if it is determined that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. The permittee shall complete repair of such equipment by the end of the next shutdown.
- (f) The permittee may designate any parts of the closed vent system or cover as unsafe to inspect if the following requirements are met. Unsafe to inspect parts are exempt from the inspection requirements of paragraphs (1) and (2).
 - (1) If the permittee determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraphs (1) or (2).
 - (2) The permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.
- (g) The permittee may designate any parts of the closed vent system or cover as difficult to inspect, if the following requirements are met. Difficult to inspect parts are exempt from the inspection requirements of paragraphs (1) and (2).
 - (1) If the permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface.

- (2) The permittee has a written plan that requires inspection of the equipment at least once every 5 years.

(Ref.: 40 CFR 60.5416(c), Subpart OOOO)

5.12 For Emission Points AA-005, AA-006, and AA-007, the permittee shall use Emission Point AA-001 comply with the emission reduction standard in Condition 3.14 (40 CFR 60.5395(d)(1)), the permittee shall demonstrate continuous compliance according to following paragraphs:

- (a) For each combustion device the permittee shall conduct inspections at least once every calendar month according to the following. Monthly inspections must be separated by at least 14 calendar days.
 - (1) Conduct visual inspections to confirm that the pilot is lit when vapors are being routed to the combustion device and that the continuous burning pilot flame is operating properly.
 - (2) Conduct olfactory, visual and auditory inspections of all equipment associated with the combustion device to ensure system integrity.
 - (3) For any absence of pilot flame, or other indication of smoking or improper equipment operation (*e.g.*, visual, audible, or olfactory), the permittee shall ensure the equipment is returned to proper operation as soon as practicable after the event occurs. At a minimum, the permittee shall perform the procedures specified in paragraphs (A) and (B).
 - (a) Check the air vent for obstruction. If an obstruction is observed, the permittee shall clear the obstruction as soon as practicable.
 - (b) Check for liquid reaching the combustor.
- (b) For each vapor recovery device, the permittee shall conduct inspections at least once every calendar month to ensure physical integrity of the control device according to the manufacturer's instructions. Monthly inspections must be separated by at least 14 calendar days.
- (c) Each control device must be operated following the manufacturer's written operating instructions, procedures and maintenance schedule to ensure good air pollution control practices for minimizing emissions. Records of the manufacturer's written operating instructions, procedures, and maintenance schedule must be available for inspection as specified in Condition 5.22 (40 CFR 60.5420(c)(13)).

(Ref.: 40 CFR 60.5417(h), Subpart OOOO)

- 5.13 For Emission Points AA-005, AA-006, and AA-007, except as specified in paragraph (v), for each storage vessel affected facility, the permittee shall maintain the records identified in paragraphs (i) through (iv).
- (a) Records of each closed vent system inspection required under Condition 5.11 (40 CFR 60.5416(c)(1)) for storage vessels.
 - (b) Records of each cover inspection required under Condition 5.11 (40 CFR 60.5416(c)(2)) for storage vessels.
 - (c) If subject to the bypass requirements of Condition 5.11 (40 CFR 60.5416(c)(3)) for storage vessels, a record of each inspection or a record each time the key is checked out or a record of each time the alarm is sounded. .
 - (d) Records of each VOC emissions determination for each storage vessel affected facility made under 40 CFR 60.5364(e) including identification of the model or calculation methodology used to calculate the VOC emission rate.
 - (e) Records of deviations in cases where the storage vessel was not operated in compliance with the requirements specified in Conditions 3.14, 3.15, 3.16, 3.17, 3.18, 5.8, and 5.9 (40 CFR 60.5395, 60.5411, 60.5412, and 60.5413), as applicable.
 - (f) For storage vessels that are skid-mounted or permanently attached to something that is mobile (such as trucks, railcars, barges or ships), records indicating the number of consecutive days that the vessel is located at a site in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment. If a storage vessel is removed from a site and, within 30 days, is either returned to or replaced by another storage vessel at the site to serve the same or similar function, then the entire period since the original storage vessel was first located at the site, including the days when the storage vessel was removed, will be added to the count towards the number of consecutive days.
 - (g) Maintain records of the identification and location of each storage vessel affected facility.
 - (h) Maintain records of the inspections, including any corrective actions taken, the manufacturers' operating instructions, procedures and maintenance schedule as specified in Condition 5.12 (40 CFR 60.5417(h)). The permittee shall maintain records of EPA Method 22, 40 CFR part 60, appendix A, section 11 results, which include: company, location, company representative (name of the person performing the observation), sky conditions, process unit (type of control device), clock start time, observation period duration (in minutes and seconds), accumulated emission time (in minutes and seconds), and clock end time. The permittee may create your own form including the above information or use Figure 22-1 in EPA Method 22, 40 CFR part 60, appendix A. Manufacturer's

operating instructions, procedures and maintenance schedule must be available for inspection.

- (i) Maintain a log of records as specified in Condition 5.8 (40 CFR 60.5412(d)(1)(iii)) for all inspection, repair and maintenance activities for each control device failing the visible emissions test.

(Ref.: 40 CFR 60.5420(c)(5),(6),(7),(8),(13) and (14) , Subpart OOOO)

- 5.14 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 upon request.

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

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	Certified Annual Report
AA-005 AA-006 AA-007	40 CFR 60.5420(b)(1) and (6), Subpart OOOO	6.2	Annual Reporting for Subpart OOOO

6.1 Except as otherwise specified herein, the permittee shall submit a certified annual report, due by the 31st of January for the proceeding calendar year. This report shall address the required monitoring specified in Conditions 5.1 and 5.2 including the following:

- (1) The quantity of VOC, individual HAP, and total HAPs on 12-month rolling totals.
- (2) Results of semi-annual analysis of natural gas produced including methane concentration (volume), hydrogen sulfide, sulfur content, gross heating value, molecular weight, and specific gravity.
- (3) Calculated cubic feet of natural gas burned, as fuel, monthly
- (4) Barrels of crude oil and water produced, monthly
- (5) Cubic feet of natural gas produced, monthly
- (6) Cubic feet of natural gas destructed in the flare, monthly
- (7) Date, start time and duration of any upsets or bypasses of control devices at the facility. If no bypasses or upsets have occurred, the facility should submit negative declarations
- (8) Results of all EPA Method 22 analysis conducted on the control flare.

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

6.2 For Emission Points AA-005, AA-006, and AA-007, the permittee shall submit annual reports in accordance with Condition 6.1 containing the information specified below:

- (1) The company name and address of the affected facility.
- (2) An identification of each affected facility being included in the annual report.
- (3) Beginning and ending dates of the reporting period.
- (4) A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (5) An identification, including the location, of each storage vessel affected facility for which construction, modification or reconstruction commenced during the reporting period. The location of the storage vessel shall be in latitude and longitude coordinates in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.
 - (6) Documentation of the VOC emission rate determination according to Condition 3.12 (40 CFR 60.5365(e)) for each storage vessel that became an affected facility during the reporting period or is returned to service during the reporting period.
 - (7) Records of deviations that occurred during the reporting period.
 - (8) Submit a notification identifying each Group 1 storage vessel affected facility in your initial annual report. You must include the location of the storage vessel, in latitude and longitude coordinates in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.
 - (9) A statement that you have met the requirements specified in Condition 5.12 (40 CFR 60.5410(h)(2) and (3)).
 - (10) Identify each storage vessel affected facility that is removed from service during the reporting period as specified in Condition 3.16 (40 CFR 60.5395(f)(1)(ii)), including the date the storage vessel affected facility was removed from service.
 - (11) You must identify each storage vessel affected facility returned to service during the reporting period as specified in Condition 3.16 (40 CFR 60.5395(f)(3)), including the date the storage vessel affected facility was returned to service.
- (Ref.: 40 CFR 60.5420(b)(1) and (6), Subpart OOOO)