

STATE OF MISSISSIPPI AIR POLLUTION CONTROL PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Sklar Exploration Company LLC,
Jeanette S Cole 21-11 Number 1 Production Facility
County Road 18 and County Road 29
Mize, 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: JUN 21 2017

Permit No.: 2500-00089

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	Facility Wide Emission Point: Oil and Gas Production
AA-001	150 HP Field Gas Pumping Unit
AA-002	Flare
AA-003	0.2 CFM Injection Pump
AA-004	Three Phase Separator
AA-005	Fugitive Emission Leaks
AA-006	Truck Loading
AA-007	16,800 Gallon Crude Oil Storage Tank
AA-008	16,800 Gallon Crude Oil Storage Tank
AA-009	21,000 Gallon Crude Oil Storage Tank
AA-010	16,800 Gallon Produce Water Storage Tank

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 Combusted	The permittee shall combust only produced natural gas
	40 CFR 60.5365	3.2	VOC SO ₂	New Source Performance Standards for Crude Oil and Natural Gas Production, Transmission, and Distribution in 40 CFR 60, Subpart OOOO
AA-001	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)a	3.3	PM	The particulate matter emissions shall not exceed 0.6 pounds per MMBtu/hour heat input
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1)	3.4	SO ₂	The maximum discharge of sulfur dioxide shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input
	11 Miss. Admin. Code Pt. 2, R. 1.3.A(1)	3.5	Opacity	The permittee shall not have emissions of opacity greater than or equal to 40% as determined by EPA Reference Method 9, 40 CFR 60, Appendix A
	40 CFR 63.6585	3.6	HAPs	National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines in 40 CFR 63, Subpart ZZZZ
AA-002	11 Miss. Admin. Code Pt. 2, R. 1.4.B(2)	3.7	H ₂ S	The permittee shall not 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 degrees 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
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)	3.8	Opacity	The permittee shall operate the flare with no visible emissions as determined by EPA Reference Method 22, except for periods not to exceed a total of five (5) minutes during any consecutive two (2) hours
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)	3.9	Operational Restriction	The permittee shall maintain a flare pilot flame, auto ignitor, or any other equivalent device at all times when emissions are routed to the flare
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)	3.10	Heating Value	The net heating value of the gas being combusted shall be 300 Btu/scf or greater if the flare is steam assisted or air assisted, or

				net heating value of the gas being combusted shall be 200 Btu/scf if the flare is non-assisted
AA-004 AA-007 through AA-010	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10)	3.11	Operational Restriction	The permittee shall only operate with the emissions routed to and controlled by the flare

- 3.1 For AA-000, all combustion units operating at this facility, the permittee shall combust only produced natural gas. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))
- 3.2 For AA-000, the facility will be subject to 40 CFR 60, Subpart OOOO, New Source Performance Standards for Crude Oil and Natural Gas Production, Transmission, and Distribution. If any of the 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)
- 3.3 For Emission Point AA-001, particulate matter emissions shall not exceed 0.6 pounds per MMBtu/hour heat input. (Ref. 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)a)
- 3.4 For Emission Point AA-001, the maximum discharge of sulfur dioxide 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))
- 3.5 For Emission Point AA-001, the permittee shall not have emissions of opacity greater than or equal to 40% as determined by EPA Reference Method 9, 40 CFR 60, Appendix A. (Ref. 11 Miss. Admin. Code Pt. 2, R. 1.3.A(1))
- 3.6 For Emission Point AA-001, the permittee is subject to the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines in 40 CFR 63, Subpart ZZZZ and the General Provisions in Subpart A. (40 CFR 63.6585)
- 3.7 For Emission Point AA-002, the permittee shall not 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 degrees 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))
- 3.8 For Emission Point AA-002, the permittee shall operate the flare with no visible emissions as determined by EPA Reference Method 22, except for periods not to exceed a total of five (5) minutes during any consecutive two (2) hours. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))

- 3.9 For Emission Point AA-002, the permittee shall maintain a flare pilot flame, auto ignitor, or any other equivalent device at all times when emissions are routed to the flare. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))
- 3.10 For Emission Point AA-002, the net heating value of the gas being combusted shall be 300 Btu/scf or greater if the flare is steam assisted or air assisted, or net heating value of the gas being combusted shall be 200 Btu/scf if the flare is non-assisted. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))
- 3.11 For Emission Points AA-004, AA-007 through AA-010, the permittee shall only operate with the emissions routed to and controlled by the flare. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))

SECTION 4
WORK PRACTICES

- 4.1 For Emission Point AA-001, except during periods of startups, the permittee shall comply with the follow requirements: 1) Change oil and filter every 1,440 hours of operation or annually, whichever comes first; 2) Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; 3) Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. The permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. (Ref. 40 CFR 63.6603(a))
- 4.2 For Emission Point AA-001, the permittee shall comply with the following work and management practices: 1) Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
2) Develop and follow 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. (Ref. 40 CFR 63.6603(a))

SECTION 5
MONITORING AND RECORDKEEPING REQUIREMENTS

- 5.1 For AA-000, the permittee shall conduct a semi-annual natural gas analysis including hydrogen sulfide concentration, sulfur content, methane concentration (volume), gross heating value, molecular weight, specific gravity, benzene concentration, ethylbenzene concentration, toluene concentration, and xylene concentration. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11))
- 5.2 For AA-000, 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, calculations 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 weekly 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 them available upon request by the Mississippi Department of Environmental Quality (MDEQ) personnel. (Ref. 11 Miss. Admin. Code Pt. 2, R 2.2.B(11))
- 5.3 For AA-000, the permittee shall report to MDEQ all applicable requirements that the facility is subject to and must comply with under 40 CFR 60 Subpart A, 40 CFR 60 Subpart OOOO. This report shall include standards, initial compliance demonstration, continuous compliance demonstration, recordkeeping, notification, performance testing, and reporting. This report shall be submitted within 60 days of certification of construction. (Ref. 40 CFR 60.5420)

- 5.4 For Emission Point AA-002, the permittee shall monitor the presence of the flare pilot flame by one of the following methods: using a thermo-couple or any other equivalent device to detect the presence of a flame; or visually observe the presence of the flare flame daily. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))

- 5.5 For Emission Point AA-002, the permittee shall visual observe the flare flame for a minimum of five (5) minutes during operations weekly. If smoke is observed, corrective action must be taken. The permittee shall perform a follow-up visual observation for a period of two (2) hours using EPA Method 22 immediately after corrections are made to demonstrate compliance with the visible emission limitations. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))

- 5.6 For Emission Point AA-002, the permittee shall keep records of all maintenance performed on the flare in order to operate the flare in a manner consistent with good air pollution practices to minimize emissions and make said records available on request. Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))

- 5.7 For Emission Point AA-002, the permittee shall record on a log sheet anytime the facility is operating without a flame present and the corrective action taken. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))

- 5.8 For Emission Point AA-002, the permittee shall keep a record of the net heating value and volume of the gas stream combusted in the flare. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))

- 5.9 For Emission Point AA-002, flare emissions shall be calculated monthly and determined for each 12-month rolling total as tons/year. The permittee shall maintain a copy of this record on site for at least five years and shall make them available upon request by the Mississippi Department of Environmental Quality (MDEQ) personnel. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))

- 5.10 For Emission Point AA-002, the permittee shall maintain a record and/or log documenting all visual observations/test, the nature and cause of any visible emissions, any corrective action(s) taken to prevent or minimize the emissions, the date and time when visible observations were conducted and the date and time when corrective action was taken. (Ref. 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10))

SECTION 6
REPORTING REQUIREMENTS

6.1 For AA-000, except as otherwise specified herein, the permittee shall submit a certified annual report, due by the 31st of January for the preceding calendar year. This report shall address the required monitoring specified in the permit including the following:

(1) the quantity of VOC, individual HAPs and total HAPs on 12 month rolling totals;

(2) results of semi-annual analysis of natural gas produced including methane concentration (by 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; and,

(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(10))