

STATE OF MISSISSIPPI AIR POLLUTION CONTROL TITLE V PERMIT

TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Tellus Operating Group, LLC
Trenton Plant
Highway 481
Raleigh, Mississippi (Smith County)

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with Title V of the Federal Clean Air Act (42 U.S.C.A. § 7401 - 7671) and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Permit Issued: September 27, 2016

Permit Modified: June 20, 2017

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires: August 31, 2021

Permit No.: 2500-00091

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SECTION 1. GENERAL CONDITIONS

- 1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Federal Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(a).)
- 1.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(b).)
- 1.3 This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(c).)
- 1.4 Prior to its expiration, this permit may be reopened in accordance with the provisions listed below.
 - (a) This permit shall be reopened and revised under any of the following circumstances:
 - (1) Additional applicable requirements under the Federal Act become applicable to a major Title V source with a remaining permit term of 3 or more years. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended.
 - (2) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
 - (3) The Permit Board or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.
 - (4) The Administrator or the Permit Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
 - (b) Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall only affect those parts of the permit for which cause

to reopen exists. Such reopening shall be made as expeditiously as practicable.

- (c) Reopenings shall not be initiated before a notice of such intent is provided to the Title V source by the DEQ at least 30 days in advance of the date that the permit is to be reopened, except that the Permit Board may provide a shorter time period in the case of an emergency.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.G)

- 1.5 The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permittee or, for information to be confidential, the permittee shall furnish such records to DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(e).)
- 1.6 This permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(6)(d).)
- 1.7 The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(5).)
- 1.8 The permittee shall pay to the DEQ an annual permit fee. The amount of fee shall be determined each year based on the provisions of regulated pollutants for fee purposes and the fee schedule specified in the Commission on Environmental Quality's order which shall be issued in accordance with the procedure outlined in Regulation 11 Miss. Admin. Code Pt. 2, Ch. 6.
 - (a) For purposes of fee assessment and collection, the permittee shall elect for actual or allowable emissions to be used in determining the annual quantity of emissions unless the Commission determines by order that the method chosen by the applicant for calculating actual emissions fails to reasonably represent actual emissions. Actual emissions shall be calculated using emission monitoring data or direct emissions measurements for the pollutant(s); mass balance calculations such as the amounts of the pollutant(s) entering and leaving process equipment and where mass balance calculations can be supported by direct measurement of process parameters, such direct measurement data shall be supplied; published emission factors such as those relating release quantities to throughput or equipment type (e.g., air emission factors); or other approaches such as engineering calculations (e.g., estimating volatilization using published mathematical formulas) or best engineering judgments where such

judgments are derived from process and/or emission data which supports the estimates of maximum actual emission. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).)

- (b) If the Commission determines that there is not sufficient information available on a facility's emissions, the determination of the fee shall be based upon the permitted allowable emissions until such time as an adequate determination of actual emissions is made. Such determination may be made anytime within one year of the submittal of actual emissions data by the permittee. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.A(2).) If at any time within the year the Commission determines that the information submitted by the permittee on actual emissions is insufficient or incorrect, the permittee will be notified of the deficiencies and the adjusted fee schedule. Past due fees from the adjusted fee schedule will be paid on the next scheduled quarterly payment time. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D(2).)
 - (c) The fee shall be due September 1 of each year. By July 1 of each year the permittee shall submit an inventory of emissions for the previous year on which the fee is to be assessed. The permittee may elect a quarterly payment method of four (4) equal payments; notification of the election of quarterly payments must be made to the DEQ by the first payment date of September 1. The permittee shall be liable for penalty as prescribed by State Law for failure to pay the fee or quarterly portion thereof by the date due. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.D.)
 - (d) If in disagreement with the calculation or applicability of the Title V permit fee, the permittee may petition the Commission in writing for a hearing in accordance with State Law. Any disputed portion of the fee for which a hearing has been requested will not incur any penalty or interest from and after the receipt by the Commission of the hearing petition. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.6.C.)
- 1.9 No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(8).)
- 1.10 Any document required by this permit to be submitted to the DEQ shall contain a certification by a responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.2.E.)
- 1.11 The permittee shall allow the DEQ, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- (a) enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;

- (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- (d) as authorized by the Federal Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

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

- 1.12 Except as otherwise specified or limited herein, the permittee shall have necessary sampling ports and ease of accessibility for any new air pollution control equipment, obtained after May 8, 1970, and vented to the atmosphere. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I(1).)
- 1.13 Except as otherwise specified or limited herein, the permittee shall provide the necessary sampling ports and ease of accessibility when deemed necessary by the Permit Board for air pollution control equipment that was in existence prior to May 8, 1970. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.I(2).)
- 1.14 Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance where such applicable requirements are included and are specifically identified in the permit or where the permit contains a determination, or summary thereof, by the Permit Board that requirements specifically identified previously are not applicable to the source. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.F(1).)
- 1.15 Nothing in this permit shall alter or affect the following:
 - (a) the provisions of Section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section;
 - (b) the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - (c) the applicable requirements of the acid rain program, consistent with Section 408(a) of the Federal Act.
 - (d) the ability of EPA to obtain information from a source pursuant to Section 114 of the Federal Act.

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

- 1.16 The permittee shall comply with the requirement to register a Risk Management Plan if permittee's facility is required pursuant to Section 112(r) of the Act to register such a plan. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.H.)
- 1.17 Expiration of this permit terminates the permittee's right to operate unless a timely and complete renewal application has been submitted. A timely application is one which is submitted at least six (6) months prior to expiration of the Title V permit. If the permittee submits a timely and complete application, the failure to have a Title V permit is not a violation of regulations until the Permit Board takes final action on the permit application. This protection shall cease to apply if, subsequent to the completeness determination, the permittee fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.C(2)., R. 6.4.B., and R. 6.2.A(1)(c).)
- 1.18 The permittee is authorized to make changes within their facility without requiring a permit revision (ref: Section 502(b)(10) of the Act) if:
- (a) the changes are not modifications under any provision of Title I of the Act;
 - (b) the changes do not exceed the emissions allowable under this permit;
 - (c) the permittee provides the Administrator and the Department with written notification in advance of the proposed changes (at least seven (7) days, or such other time frame as provided in other regulations for emergencies) and the notification includes:
 - (1) a brief description of the change(s),
 - (2) the date on which the change will occur,
 - (3) any change in emissions, and
 - (4) any permit term or condition that is no longer applicable as a result of the change;
 - (d) the permit shield shall not apply to any Section 502(b)(10) change.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.F(1).)

- 1.19 Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in 11

Miss. Admin. Code Pt. 2, Ch. 3., "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared. (Ref.: 11 Miss. Admin. Code Pt. 2, Ch. 3.)

- 1.20 Except as otherwise provided herein, a modification of the facility may require a Permit to Construct in accordance with the provisions of Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2., "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment", and may require modification of this permit in accordance with Regulations 11 Miss. Admin. Code Pt. 2, Ch. 6., "Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act". Modification is defined as "[a]ny physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:
- (a) routine maintenance, repair, and replacement;
 - (b) use of an alternative fuel or raw material by reason of an order under Sections 2 (a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
 - (c) use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;
 - (d) use of an alternative fuel or raw material by a stationary source which:
 - (1) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; or
 - (2) the source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166;
 - (e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or 40 CFR 51.166; or
 - (f) any change in ownership of the stationary source.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.C(15).)

- 1.21 Any change in ownership or operational control must be approved by the Permit Board. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.4.D(4).)
- 1.22 This permit is a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. All terms and conditions, including any designed to limit the source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act as well as the Commission. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.B(1).)
- 1.23 Except as otherwise specified or limited herein, the open burning of residential, commercial, institutional, or industrial solid waste, is prohibited. This prohibition does not apply to infrequent burning of agricultural wastes in the field, silvicultural wastes for forest management purposes, land-clearing debris, debris from emergency clean-up operations, and ordnance. Open burning of land-clearing debris must not use starter or auxiliary fuels which cause excessive smoke (rubber tires, plastics, etc.); must not be performed if prohibited by local ordinances; must not cause a traffic hazard; must not take place where there is a High Fire Danger Alert declared by the Mississippi Forestry Commission or Emergency Air Pollution Episode Alert imposed by the Executive Director and must meet the following buffer zones.
- (a) Open burning without a forced-draft air system must not occur within 500 yards of an occupied dwelling.
 - (b) Open burning utilizing a forced-draft air system on all fires to improve the combustion rate and reduce smoke may be done within 500 yards of but not within 50 yards of an occupied dwelling.
 - (c) Burning must not occur within 500 yards of commercial airport property, private air fields, or marked off-runway aircraft approach corridors unless written approval to conduct burning is secured from the proper airport authority, owner or operator.
- (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.G.)
- 1.24 Except as otherwise specified herein, the permittee shall be subject to the following provision with respect to emergencies:
- (a) Except as otherwise specified herein, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- (b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.
- (c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:
 - (1) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - (2) the permitted facility was at the time being properly operated;
 - (3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
 - (4) the permittee submitted notice of the emergency to the DEQ within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- (d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

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

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

- (a) Upsets (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)
 - (1) For an upset, the Commission may pursue an enforcement action for noncompliance with an emission standard or other requirement of an applicable rule, regulation, or permit. In determining whether to pursue enforcement action, and/or the appropriate enforcement action to take, the Commission may consider whether the source has demonstrated through properly signed contemporaneous operating logs or other relevant evidence the following:

- (i) An upset occurred and that the source can identify the cause(s) of the upset;
 - (ii) The source was at the time being properly operated;
 - (iii) During the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standard or other requirement of an applicable rule, regulation, or permit;
 - (iv) That within 5 working days of the time the upset began, the source submitted a written report to the Department describing the upset, the steps taken to mitigate excess emissions or any other noncompliance, and the corrective actions taken and;
 - (v) That as soon as practicable but no later than 24 hours of becoming aware of an upset that caused an immediate adverse impact to human health or the environment beyond the source boundary or caused a general nuisance to the public, the source provided notification to the Department.
- (2) In any enforcement proceeding by the Commission, the source seeking to establish the occurrence of an upset has the burden of proof.
- (3) This provision is in addition to any upset provision contained in any applicable requirement.
- (4) These upset provisions apply only to enforcement actions by the Commission and are not intended to prohibit EPA or third party enforcement actions.
- (b) Startups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)
 - (1) Startups and shutdowns are part of normal source operation. Emission limitations apply during startups and shutdowns unless source specific emission limitations or work practice standards for startups and shutdowns are defined by an applicable rule, regulation, or permit.
 - (2) Where the source is unable to comply with existing emission limitations established under the State Implementation Plan (SIP) and defined in this regulation, 11 Mississippi Administrative Code, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for startups and shutdowns. Source specific emission limitations or work practice standards established for startups and shutdowns are subject to the requirements prescribed in 11 Miss. Admin. Code Pt. 2, R. 1.10.B(2)(a) through (e).

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

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

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

SECTION 2. EMISSION POINTS & POLLUTION CONTROL DEVICES

| Emission Point | Description |
|----------------|--|
| AA-001 | Oil production facility with a capacity of 2,250 mcf/day of produced natural gas and 1,800 bbl/day of crude oil equipped with a Flare, and a 0.05 MMBTU/hr gas-fired pilot, to control VOC emissions from the following sources: <ul style="list-style-type: none"> Gas produced from the Oil/Gas Separator, and Emissions from the eight (8) oil production storage and process tanks |
| AA-002 | Oil/Gas Separator with produced gas routed to the Flare (AA-001) |
| AA-003 | Eight (8) 16,800-gallon (400-bbl) Vertical Fixed-Roof Oil Production Storage Tanks, with emissions vented to the Flare (AA-001) |
| AA-004 | One (1) 16,800-gallon (400-bbl) Vertical Fixed-Roof Untreated Oil Tank for low quality oil, with emissions vented to the atmosphere |
| AA-005 | One (1) 16,800-gallon (400-bbl) Vertical Fixed-Roof Produced Water Storage Tank, with emissions vented to the atmosphere |
| AA-006 | Truck Loading Emissions vented to the atmosphere |
| AA-007 | Fugitive Emissions from Equipment Leaks (Insignificant Activity) |
| AA-008 | One (1) natural gas-fired non-emergency Compressor (Engine) with a pre-2006 4-stroke, rich burn, spark ignition engine that does not exceed 500 horsepower (HP) and is located at an area HAP source. |
| AA-009 | One (1) natural gas-fired Heater Treater with a 1.0 MMBTU/hr burner |
| AA-010 | One (1) natural gas-fired Line Heater with a 0.75 MMBTU/hr burner |

SECTION 3. EMISSION LIMITATIONS & STANDARDS

A. Facility-Wide Emission Limitations & Standards

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

- (a) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.
- (b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour.

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

3.A.2 Except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Paragraph 3.A.1. This shall not apply to vision obscuration caused by uncombined water droplets. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.B.)

B. Emission Point Specific Emission Limitations & Standards

| Emission Point(s) | Applicable Requirement | Condition Number(s) | Pollutant/Parameter | Limit/Standard |
|-----------------------|---|---------------------|---------------------|---|
| AA-001 through AA-010 | Permit to Construct and Title V Operating Permit (TVOP) issued September 27, 2016 | 3.B.1 | VOC and CO | 240 tpy (each), determined for each consecutive 12-month period |
| | | | Total HAPs | 22 tpy, determined for each consecutive 12-month period |
| | | | Individual HAP | 9.0 tpy, determined for each consecutive 12-month period |
| | | | Oil and Gas | Record oil and gas production |

| Emission Point(s) | Applicable Requirement | Condition Number(s) | Pollutant/Parameter | Limit/Standard |
|---------------------------|---|---------------------|---------------------|---|
| AA-001 through AA-010 | 11 Miss. Admin. Code Pt. 2, R. 1.4.B(2). | 3.B.2 | H ₂ S | 1 grain H ₂ S per 100 standard cubic feet (1 gr/100 scf) |
| AA-001 | Permit to Construct and TVOP issued September 27, 2016, TVOP issued June 20, 2017, and 40 CFR 63.11(b)(4) | 3.B.3 | Visible Emissions | No visible emissions, except for periods not to exceed 5 minutes during any 2 consecutive hours |
| | | 3.B.4 | Flare Pilot | Operate with a flame present at all times |
| AA-001 | 40 CFR Part 64, CAM Requirements | 3.B.5 | CO, VOC, and HAPs | Visible presence of a flame. See CAM Plan in Appendix B. |
| AA-002 | Permit to Construct and TVOP issued September 27, 2016 | 3.B.6 | VOC and CO | Flare all produced gas from the separator |
| AA-003 | Permit to Construct and TVOP issued September 27, 2016 and TVOP issued June 20, 2017 | 3.B.7 | VOC and CO | Route all emissions to the Flare |
| AA-008 | 40 CFR Part 63, Subpart ZZZZ: §63.6585, §63.6585(a) and (c), and §63.6590(a)(1)(iii) | 3.B.8 | HAP | Applicability |
| | 40 CFR Part 63, Subpart ZZZZ: §63.6603(a) and Table 2d(10) | 3.B.9 | HAP | O&M Requirements |
| AA-008, AA-009 and AA-010 | 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a). | 3.B.10 | PM | 0.6 lb/MMBTU |
| | 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1). | 3.B.11 | SO ₂ | 4.8 lb/MMBTU |

3.B.1 For Emission Points AA-001 through AA-010, the permittee shall limit emissions as follows:

- (a) Volatile Organic Compounds (VOC) to less than or equal to 240 tons per year;
- (b) Carbon Monoxide (CO) to less than or equal to 240 tons per year;
- (c) Total Hazardous Air Pollutants (HAPs) to less than or equal to 22 tons per year; and
- (d) Individual HAPs to less than or equal to 9.0 tons per year.

The facility-wide emissions for each pollutant shall be determined for each consecutive 12-month period. The permittee shall also monitor and record the oil and gas produced from the well(s) by using a calibrated metering device. This data shall be used in calculated emissions to ensure compliance with the above limits. (Ref.: Permit to Construct and Title V Operating Permit (TVOP) issued September 27, 2016 and 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

- 3.B.2 For Emission Points AA-001 through AA-010, the permittee shall not cause or 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 H_2S 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 a manner which is equivalent to or more effective for the removal of H_2S . (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.B(2).)
- 3.B.3 For Emission Point AA-001, the permittee shall design for and operate the flare with no visible emissions, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. (Ref.: Permit to Construct and TVOP issued September 27, 2016, TVOP issued June 20, 2017, and 40 CFR 63.11(b)(4))
- 3.B.4 For Emission Point AA-001, the permittee shall operate the flare with a flame present at all times. (Ref.: Permit to Construct and TVOP issued September 27, 2016)
- 3.B.5 For Emission Point AA-001, the permittee shall comply with the Compliance Assurance Monitoring (CAM) requirements as specified in 40 CFR Part 64. A CAM Plan has been prepared to ensure the visible presence of a flame and is provided in Appendix B.
- 3.B.6 For Emission Point AA-002, the permittee shall route all produced gas from the Oil/Gas Separator to the Flare (AA-001). (Ref.: Permit to Construct and TVOP issued September 27, 2016)
- 3.B.7 For Emission Point AA-003, the permittee shall route all emissions from the eight (8) Oil Production Tanks to the Flare (AA-001). (Ref.: Permit to Construct and TVOP issued September 27, 2016 and TVOP issued June 20, 2017)
- 3.B.8 Emission Point AA-008 is subject to 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). Emission Point AA-008 is an existing non-emergency stationary RICE located at an area source of HAPs and is required to meet the applicable requirements of this standard and the applicable General Provisions, 40 CFR Part 63, Subpart A. (Ref.: §63.6580, §63.6585(a) and (c), and §63.6590(a)(1)(iii))
- 3.B.9 For Emission Point AA-008, which is an existing stationary non-emergency RICE located at an area HAP source, the permittee must comply with the following requirements:

- (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.

(Ref.: §63.6603(a) and Table 2d(10))

3.B.10 For Emission Points AA-008, AA-009, and AA-010, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a))

3.B.11 For Emission Points AA-008, AA-009, and AA-010, 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).)

C. Insignificant and Trivial Activity Emission Limitations & Standards

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

3.C.1 The maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).)

3.C.2 The maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).)

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

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

where E is the emission rate in pounds per hour and p is the process weight input rate in tons per hour. If the process weight input rate (p) changes, the emissions rate (E) will change correspondingly. (Ref.: Ref.: 11 Miss. Admin. Code Pt. 2, R.1.3.F(1).)

SECTION 4. COMPLIANCE SCHEDULE

- 4.1 Unless otherwise specified herein, the permittee shall be in compliance with all requirements contained herein upon issuance of this permit.
- 4.2 Except as otherwise specified herein, the permittee shall submit to the Permit Board and to the Administrator of EPA Region IV a certification of compliance with permit terms and conditions, including emission limitations, standards, or work practices, by January 31 for the preceding calendar year. Each compliance certification shall include the following:
- (a) the identification of each term or condition of the permit that is the basis of the certification;
 - (b) the compliance status;
 - (c) whether compliance was continuous or intermittent;
 - (d) the method(s) used for determining the compliance status of the source, currently and over the applicable reporting period;
 - (e) such other facts as may be specified as pertinent in specific conditions elsewhere in this permit.

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

SECTION 5. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

A. General Monitoring, Recordkeeping and Reporting Requirements

- 5.A.1 The permittee shall install, maintain, and operate equipment and/or institute procedures as necessary to perform the monitoring and recordkeeping specified below. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)
- 5.A.2 In addition to the recordkeeping specified below, the permittee shall include with all records of required monitoring information the following:
- (a) the date, place as defined in the permit, and time of sampling or measurements;
 - (b) the date(s) analyses were performed;
 - (c) the company or entity that performed the analyses;
 - (d) the analytical techniques or methods used;
 - (e) the results of such analyses; and
 - (f) the operating conditions existing at the time of sampling or measurement.
- (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(b)(1).)
- 5.A.3 Except where a longer duration is specified in an applicable requirement, the permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(b)(2).)
- 5.A.4 Except as otherwise specified herein, the permittee shall submit reports of any required monitoring by July 31 and January 31 for the preceding six-month period. All instances of deviations from permit requirements must be clearly identified in such reports and all required reports must be certified by a responsible official consistent with 11 Miss. Admin. Code Pt. 2, R. 6.2.E. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(1).)
- 5.A.5 Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within

five (5) days of the time the deviation began. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c)(2).)

5.A.6 Except as otherwise specified herein, the permittee shall perform emissions sampling and analysis in accordance with EPA Test Methods and with any continuous emission monitoring requirements, if applicable. All test methods shall be those versions or their equivalents approved by the DEQ and the EPA. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

5.A.7 The permittee shall maintain records of any alterations, additions, or changes in equipment or operation. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3).)

B. Specific Monitoring and Recordkeeping Requirements

| Emission Point(s) | Applicable Requirement | Condition Number | Pollutant/Parameter Monitored | Monitoring/Recordkeeping Requirement |
|-----------------------|---|------------------|--|--|
| AA-001 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3) | 5.B.1 | H ₂ S | Sample H ₂ S in the flared gas on a semi-annual basis |
| AA-001 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3) | 5.B.2 | Oil and Gas | Install, operate, and maintain the oil and gas flow meters to measure total oil production and gas flow to the flare |
| AA-001 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3) | 5.B.3 | Visible Emissions | Quarterly visible emission observations |
| AA-001 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3) | 5.B.4 | Presence of Flame | Monitor for presence of a flame |
| AA-001 | 40 CFR Part 64 | 5.B.5 | CO, VOC, and HAPs | Visible presence of a flame. See CAM Plan in Appendix B. |
| AA-001 through AA-010 | 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3) | 5.B.6 | VOC, CO, total HAPs, and each individual HAP | Determine emissions on a monthly basis and for each consecutive 12-month period |
| | | | Oil and Gas | Record oil and gas production |
| AA-008 | 40 CFR Part 63, Subpart ZZZZ; §63.6625(e)(8), §63.6655(d), and Table 6(9) | 5.B.7 | HAP | Maintenance |
| | 40 CFR Part 63, Subpart ZZZZ; §63.6605 | 5.B.8 | HAP | Compliance and good air pollution control practices |
| | 40 CFR Part 63, Subpart ZZZZ; §63.6655(e)(3) | 5.B.9 | HAP | Recordkeeping |

- 5.B.1 For Emission Point AA-001, the permittee shall measure the H₂S concentration in the combined gas stream to the flare on a semi-annual basis. The permittee shall use a portable H₂S gas monitor meeting ASTM standards and shall ensure the monitor is calibrated in accordance to the manufacturer's specifications. For each H₂S measurement, the permittee shall record the date of monitoring, the H₂S concentration, the date the gas monitor was last calibrated, and the personnel performing the monitoring. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3))
- 5.B.2 For Emission Point AA-001, the permittee shall install, operate, and maintain a flow meter for measuring the total oil production and gas flow to the flare for each calendar month. The flow meter(s) shall be installed in a location that will represent the total flow. The flow meter(s) shall be operated and maintained in accordance to the manufacturer's specifications. The permittee shall record the monthly flow totals and shall record any periods the flow meter was inoperable, the date and extent of all maintenance conducted on the meter, and any corrective action taken to repair any noted problems. (Ref.: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3))
- 5.B.3 For Emission Point AA-001, the permittee shall conduct quarterly visible observations of the flare while emissions are being vented to the flare. The permittee shall perform a visual observation for a period of two (2) hours using EPA Method 22. The date, time, and duration of any visible emissions noted shall be recorded, as well as any corrective actions taken and the results of the two-hour visual observations. (Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3) and 40 CFR 63.11(b)(4))
- 5.B.4 For Emission Point AA-001, the permittee shall install a thermocouple or equivalent device to monitor the presence of a flame. The permittee shall install, operate, and maintain the thermocouple or equivalent device in accordance to the manufacturer's specifications. An alarm or other means of notification shall be triggered any time that the monitoring device indicates no flame is present. The permittee shall record the date, time, and duration that emissions are vented to the flare while a flame is not present. The permittee shall also record the date and extent of maintenance on the monitoring device, including calibrations, as recommended by the manufacturer. (Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3) and 40 CFR 63.11(b)(5))
- 5.B.5 For Emission Point AA-001, the permittee shall comply with the Compliance Assurance Monitoring (CAM) requirements as specified in 40 CFR Part 64. A CAM Plan has been prepared to ensure the visible presence of a flame and is provided in Appendix B.
- 5.B.6 For Emission Points AA-001 through AA-010, the permittee shall determine the emissions for VOC, CO, total HAPs, and each individual HAP. The facility-wide emissions for each pollutant shall be determined on a monthly basis and for each consecutive 12-month period. The permittee shall also monitor and record the oil and gas produced from the well(s) by using a calibrated metering device. This data shall be used in calculating emissions, where necessary, to ensure compliance with the permit limits. The permittee shall also utilize

emission factors for fuel burning equipment and mass balance emissions calculations to calculate emissions flared from the process gas and oil storage tanks, using actual monthly oil production data. (Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3))

5.B.7 For Emission Point AA-008, the permittee shall operate and maintain the stationary RICE according to the manufacturer's emission-related written instructions or develop their 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.: §63.6625(e)(8), §63.6655(d), and Table 6(9))

5.B.8 For Emission Point AA-008, the permittee shall comply with the following:

- (a) The permittee must be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR 63, Subpart ZZZZ that apply at all times.
- (b) The permittee must operate and maintain at all times any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require 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 DEQ 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.: §63.6605)

5.B.9 For Emission Point AA-008, the permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the unit has been operated and maintained according to the maintenance plan. (Ref.: §63.6655(e)(3))

C. Specific Reporting Requirements

5.C.1 For Emission Point AA-001, the permittee shall submit a report containing the flow monitoring (oil and gas) and H₂S concentration for each calendar month and consecutive 12-month period. This summary report shall be submitted in accordance with permit condition 5.A.4. (Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c))

5.C.2 For Emission Point AA-001, the permittee shall submit a report of deviations with the flare and visible emissions requirements. This summary report shall be submitted in accordance with permit condition 5.A.4. (Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c))

5.C.3 For Emission Point AA-001, the permittee shall submit semi-annual reports summarizing

each excursion from the CAM Plan and the associated corrective actions. If there were no excursions, a negative declaration should be reported. This data will be reported in accordance with Condition 5.A.4. (Ref: 40 CFR 64.9(a) and (b) and 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c))

- 5.C.4 For Emission Points AA-001 through AA-010, the permittee shall submit a report containing the VOC, CO, and HAP (total and individual) emissions for each calendar month and consecutive 12-month period. This summary report shall be submitted in accordance with permit condition 5.A.4. (Ref: 11 Miss. Admin. Code Pt. 2, R. 6.3.A(3)(c))
- 5.C.5 For Emission Point AA-008, the permittee shall provide a statement or summary report that the stationary RICE has been operated and maintained according to the manufacturer's emission-related written instructions or their own maintenance plan. (Ref.: 40 CFR 63, Subpart ZZZZ, Table 2d(10))

SECTION 6. ALTERNATIVE OPERATING SCENARIOS

None permitted.

SECTION 7. TITLE VI REQUIREMENTS

The following are applicable or potentially applicable requirements originating from Title VI of the Clean Air Act – Stratospheric Ozone Protection. The full text of the referenced regulations may be found on-line at <http://ecfr.gpoaccess.gov> under Title 40, or DEQ shall provide a copy upon request from the permittee.

- 7.1 If the permittee produces, transforms, destroys, imports or exports a controlled substance or imports or exports a controlled product, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart A – Production and Consumption Controls.
- 7.2 If the permittee performs service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart B – Servicing of Motor Vehicle Air Conditioners.
- 7.3 The permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart E – The Labeling of Products Using Ozone-Depleting Substances, for the following containers and products:
 - (a) All containers in which a class I or class II substance is stored or transported;
 - (b) All products containing a class I substance; and
 - (c) All products directly manufactured with a process that uses a class I substance, unless otherwise exempted by this subpart or, unless EPA determines for a particular product that there are no substitute products or manufacturing processes for such product that do not rely on the use of a class I substance, that reduce overall risk to human health and the environment, and that are currently or potentially available. If the EPA makes such a determination for a particular product, then the requirements of this subpart are effective for such product no later than January 1, 2015.
- 7.4 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart F – Recycling and Emissions Reduction:
 - (a) Servicing, maintaining, or repairing appliances;
 - (b) Disposing of appliances, including small appliances and motor vehicle air conditioners;
or
 - (c) Refrigerant reclaimers, technician certifying programs, appliance owners and operators, manufacturers of appliances, manufacturers of recycling and recovery equipment, approved recycling and recovery equipment testing organizations, persons

selling class I or class II refrigerants or offering class I or class II refrigerants for sale, and persons purchasing class I or class II refrigerants.

- 7.5 The permittee shall be allowed to switch from any ozone-depleting substance to any acceptable alternative that is listed in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G – Significant New Alternatives Policy Program. The permittee shall also comply with any use conditions for the acceptable alternative substance.
- 7.6 If the permittee performs any of the following activities, the permittee shall comply with the applicable requirements of 40 CFR Part 82, Subpart H – Halon Emissions Reduction:
- (a) Any person testing, servicing, maintaining, repairing, or disposing of equipment that contains halons or using such equipment during technician training;
 - (b) Any person disposing of halons;
 - (c) Manufacturers of halon blends; or
 - (d) Organizations that employ technicians who service halon-containing equipment.

APPENDIX A

List of Abbreviations Used In this Permit

| | |
|------------------------------------|---|
| 11 Miss. Admin. Code Pt. 2, Ch. 1. | Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants |
| 11 Miss. Admin. Code Pt. 2, Ch. 2. | Permit Regulations for the Construction and/or Operation of Air Emissions Equipment |
| 11 Miss. Admin. Code Pt. 2, Ch. 3. | Regulations for the Prevention of Air Pollution Emergency Episodes |
| 11 Miss. Admin. Code Pt. 2, Ch. 4. | Ambient Air Quality Standards |
| 11 Miss. Admin. Code Pt. 2, Ch. 5. | Regulations for the Prevention of Significant Deterioration of Air Quality |
| 11 Miss. Admin. Code Pt. 2, Ch. 6. | Air Emissions Operating Permit Regulations for the Purposes of Title V of the Federal Clean Air Act |
| 11 Miss. Admin. Code Pt. 2, Ch. 7. | Acid Rain Program Permit Regulations for Purposes of Title IV of the Federal Clean Air Act |
| BACT | Best Available Control Technology |
| CEM | Continuous Emission Monitor |
| CEMS | Continuous Emission Monitoring System |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COM | Continuous Opacity Monitor |
| COMS | Continuous Opacity Monitoring System |
| DEQ | Mississippi Department of Environmental Quality |
| EPA | United States Environmental Protection Agency |
| gr/dscf | Grains Per Dry Standard Cubic Foot |
| HP | Horsepower |
| HAP | Hazardous Air Pollutant |
| lbs/hr | Pounds per Hour |
| M or K | Thousand |
| MACT | Maximum Achievable Control Technology |
| MM | Million |
| MMBTUH | Million British Thermal Units per Hour |
| NA | Not Applicable |
| NAAQS | National Ambient Air Quality Standards |
| NESHAP | National Emissions Standards for Hazardous Air Pollutants, 40 CFR 61 or National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 CFR 63 |
| NMVOC | Non-Methane Volatile Organic Compounds |
| NO _x | Nitrogen Oxides |
| NSPS | New Source Performance Standards, 40 CFR 60 |
| O&M | Operation and Maintenance |
| PM | Particulate Matter |
| PM ₁₀ | Particulate Matter less than 10 µm in diameter |
| ppm | Parts per Million |
| PSD | Prevention of Significant Deterioration, 40 CFR 52 |
| SIP | State Implementation Plan |
| SO ₂ | Sulfur Dioxide |
| TPY | Tons per Year |
| TRS | Total Reduced Sulfur |
| VEE | Visible Emissions Evaluation |
| VHAP | Volatile Hazardous Air Pollutant |
| VOC | Volatile Organic Compound |

APPENDIX B

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

EMISSION POINT AA-001

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

Emission Source: AA-001

I. Background

A. Emission Unit

Description: One (1) flare controlling Volatile Organic Compounds (VOC), Carbon Monoxide (CO), Total Hazardous Air Pollutants (HAPs), & Individual HAP emissions, from gas produced by the well and processed by the tank battery.

Identification: AA-001

Facility: Tellus Operating Group, LLC - Trenton Plant

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: 40 CFR 64, CAM

Emission limits: VOC must be less than or equal to 240 tons per year (tpy); CO must be less than or equal to 240 tons per year; Total HAPs must be less than or equal to 22 tpy; & Individual HAPs must be less than or equal to 9.0 tpy.

Monitoring Requirements: Visible Presence of a Flame and Design and Operational Controls to ensure the flare operates at all times during well production

C. Control Technology

Thermal Combustion

II. Monitoring Approach

The key elements of the monitoring approach are presented in Table A.

Table A. Monitoring Approach for Emission Point AA-001.

| | Indicator No. 1 | Indicator No. 2 |
|----------------------------|---|--|
| I. Indicator | Visible Presences of a Flame | Operational Design & Controls |
| Measurement Approach | A visual observation for the presence of a flame is determined daily. | <p>Auto-ignitor will initiate a re-lighting sequence to produce a new flame if the flame is lost.</p> <p>A low temperature detection and alarm system is installed.</p> <p>The flare is equipped with low temperature sensor.</p> <p>The well and battery is equipped with an auto-shutdown alarm.</p> <p>The flare is equipped with an automatic switchover from field gas to propane if field gas volumes run low.</p> |
| II. Indicator Range | <p>An excursion is defined as no flame visibly present while the well is producing gas to the flare.</p> <p>Excursions trigger a reporting requirement within five (5) working days.</p> <p>Not more than 6 excursions in any semi-annual reporting period.</p> | <p>Alarm thresholds are established at 725°F and 2-minutes; Both may be adjusted if determined appropriate.</p> <p>A gas analysis ensuring adequate BTU content of produced gas is measured semiannually.</p> <p>An excursion is defined as no flame visibly present while the well is producing gas to the flare.</p> <p>Excursions trigger a reporting requirement within 5 working days.</p> <p>Not more than 6 excursions in any semi-annual reporting period.</p> |
| III. Performance Criteria | | |
| A. Data Representativeness | Visible presence of a flame | Visible presence of a flame |

| | | |
|---------------------------------------|-----------------------------------|---|
| B. Verification of Operational Status | Visible presence of a flame | Visible presence of a flame and auto detection system |
| C. QA/QC Practices and Criteria | N/A | N/A |
| D. Monitoring Frequency | The flare is observed daily. | The flare is observed daily. |
| E. Data Collection Procedure | N/A, the flare is observed daily. | N/A, the flare is observed daily. |
| F. Averaging period | N/A, the flare is observed daily. | N/A, the flare is observed daily. |

JUSTIFICATION

I. Background

The pollutant-specific emission unit is the flare controlling VOC, CO, and HAP emissions from the wells' produced gas and tank battery's process gas.

II. Rationale for Selection of Performance Indicators

Visible Flame Presence:

Visible determination of a flame was selected as a performance indicator because it is indicative of thermal combustion of emissions from the flame. When the flare is operating, there will be a flame present.

Design and Controls:

The facility's flare is operated with a pilot light supplied by sweet gas from the well. A backup propane source is available, if needed. The flare is equipped with an automatic switchover from field gas to propane in the event that field gas volumes were to run too low. In the event that the flare flame is diminished, then the auto-ignitor will initiate the re-lighting sequence to produce a new flame. The well and battery is also equipped with a low temperature detection and alarm system. The flare is equipped with a probe near the tip of the stack; if the probe sensor detects a low temperature, then the auto-ignitor will initiate a relighting sequence for approximately two-minutes. If the flare fails to re-light within two-minutes, then the well's alarm will notify personnel and the auto-shutdown sequence will commence and the well will be shut in. Current thresholds are established at 725°F and two-minutes; however, both thresholds may be adjusted if determined appropriate.

The production supervisor will receive an automated notification in the event that the auto-ignitor is initiated and in the event that the well shutdown process is initiated. Thus, personnel will be onsite shortly following either event.

Well production activities will not recommence until all problems are resolved with the flare and associated activities and the flare is relit and properly maintained. All alarms and engineering controls will be properly established and tested prior to commencing operations.

III. Rationale for Selecting Indicator Ranges

The indicator range is simply a daily visual observation of a flame, as well as, auto detection of a flame with the thermocouple. Additionally, a gas analysis of produced gas is measure semiannually to ensure the BTU content is appropriate for adequate combustion.

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