# MAJOR SOURCE OPERATING PERMIT 

## Permittee: Pruet Production Company <br> Facility Name: Cedar Creek, Area No. 2

Facility No.: 103-0017
Location: County Rd. 29 \& County Rd. 6, Conecuh Co., AL
In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§ 22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

Pursuant to the Clean Air Act of 1990, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the Clean Air Act of 1990 are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.

Issuance Date:
Effective Date:
Modification Date: DRAFT
Expiration Date: October 10, 2023

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## General Permit Provisos



## 2. Renewals

An application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of this permit.
The source for which this permit is issued shall lose its right to operate upon the expiration of this permit unless a timely and complete renewal application has been submitted within the time constraints listed in the previous paragraph.

## 3. Severability Clause

The provisions of this permit are declared to be severable and if any section, paragraph, subparagraph, subdivision, clause, or phrase of this permit shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgment shall not affect, impair, or invalidate the remainder of this permit, but shall be confined in its operation to the section, paragraph, subparagraph, subdivision, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.

## 4. Compliance

(a) The permittee shall comply with all conditions of ADEM Admin. Code 335-3. Noncompliance with this permit will constitute a violation of the Clean Air Act of 1990 and ADEM Admin. Code 335-3 and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the permittee.
(b) The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

Regulations

Rule 335-3-16-.02(6)

Rule 335-3-16-.12(2)

Rule 335-3-16-.05(e)

Rule 335-3-16-.05(f)

Rule 335-3-16-.05(g)

## General Permit Provisos

| Federally Enforceable Provisos | Termination for Cause |
| :--- | :--- |
| 5. |  |
| This permit 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 will not stay any permit condition. |  |

## 6. Property Rights

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

## 7. Submission of Information

The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.
8. Economic Incentives, Marketable Permits, and Emissions Trading

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.

## 9. Certification of Truth, Accuracy, and Completeness:

Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain certification by a responsible 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.

Regulations

Rule 335-3-16-.05(h)

Rule 335-3-16-.05(i)

Rule 335-3-16-.05(j)

Rule 335-3-16-.05(k)

Rule 335-3-16-.07(a)

## General Permit Provisos

## Federally Enforceable Provisos <br> 10. Inspection and Entry <br> Upon presentation of credentials and other documents as may

 be required by law, the permittee shall allow authorized representatives of the Alabama Department of Environmental Management and EPA to conduct the following:(a) Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit;
(b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit;
(c) Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit;
(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.

## 11. Compliance Provisions

(a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.
(b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.

## 12. Compliance Certification

A compliance certification shall be submitted annually within sixty (60) days of the end of the reporting period.
(a) The compliance certification shall include the following:
(1) The identification of each term or condition of this permit that is the basis of the certification;
(2) The compliance status;

Regulations

Rule 335-3-16-.07(b)

Rule 335-3-16-.07(c)

Rule 335-3-16-.07(e)

## General Permit Provisos

Federally Enforceable Provisos
(3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements);
(4) Whether compliance has been continuous or intermittent;
(5) Such other facts as the Department may require to determine the compliance status of the source;
(b) The compliance certification shall be submitted to:

## Alabama Department of Environmental Management <br> Air Division <br> P.O. Box 301463 <br> Montgomery, AL 36130-1463 and to: <br> Air and EPCRA Enforcement Branch <br> EPA Region IV <br> 61 Forsyth Street, SW <br> Atlanta, GA 30303

## 13. Reopening for Cause

Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit:
(a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (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 this permit is due to expire.
(b) 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 this permit.
(c) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

Rule 335-3-16-.13(5)
(R)

Regulations

## General Permit Provisos

## Federally Enforceable Provisos <br> (d) The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

## 14. Additional Rules and Regulations

This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.

## 15. Equipment Maintenance or Breakdown

(a) In the case of shutdown of air pollution control equipment (which operates pursuant to any permit issued by the Director) for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Director at least twenty-four (24) hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. Such prior notice shall include, but is not limited to the following:
(1) Identification of the specific facility to be taken out of service as well as its location and permit number;
(2) The expected length of time that the air pollution control equipment will be out of service;
(3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period;
(4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period;
(5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.
§22-28-16(d), Code of Alabama 1975, as amended

Rule 335-3-1-.07(1) \& Rule 335-3-1-.07(2)

## General Permit Provisos



Regulations

## 16. Operation of Capture and Control Devices

All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.

## 17. Obnoxious Odors

This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.

## 18. Fugitive Dust

(a) Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.
(b) Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:
(1) By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
(2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
(3) By paving;
§22-28-16(d), Code of Alabama 1975, as amended

Rule 335-3-1-. 08

Rule 335-3-4-. 02

## General Permit Provisos

## Federally Enforceable Provisos <br> (4) By the application of binders to the road surface at any time the road surface is found to allow the

Regulations creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

## 19. Additions and Revisions

Any modifications to this source shall comply with the modification procedures in Rules 335-3-16-. 13 or 335-3-16. 14.

## 20. Recordkeeping Requirements

(a) Records of required monitoring information of the source shall include the following:
(1) The date, place, and time of all sampling or measurements;
(2) The date analyses were performed;
(3) The company or entity that performed the analyses;
(4) The analytical techniques or methods used;
(5) The results of all analyses; and
(6) The operating conditions that existed at the time of sampling or measurement.
(b) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit

Rule 335-3-16-. 13 \&
Rule 335-3-16-.13.14

Rule 335-3-16-.05(c)(2)

## General Permit Provisos

## Federally Enforceable Provisos 21. Reporting Requirements (a) Reports to the Department of any required monitoring

 shall be submitted at least every 6 months. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).(b) Deviations from permit requirements shall be reported within 48 hours or 2 working day of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.

## 22. Emission Testing Requirements

Each point of emission which requires testing will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.

The Air Division must be notified in writing at least 10 days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:
(1) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
(2) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures require probe cleaning).
(3) A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operations, and the rated capacity.

## Regulations

Rule 335-3-16-.05(c)(3).

Rule 335-3-1-.05(3) \&
Rule 335-3-1-.04(1)

Rule 335-3-1-. 04

## General Permit Provisos

## Federally Enforceable Provisos <br> (4) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances. <br> A pretest meeting may be held at the request of the source owner or the Air Division. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis. <br> All test reports must be submitted to the Air Division within 30 days of the actual completion of the test unless an extension of time is specifically approved by the Air Division.

## 23. Payment of Emission Fees

Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code R. 335-1-7-. 04.

## 24. Other Reporting and Testing Requirements

Submission of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require emission testing at any time.

## 25. Title VI Requirements (Refrigerants)

Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances as listed in 40 CFR Part 82, Subpart A, Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82, Subpart F.

No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing, maintenance, or disposal of any device except as provided in 40 CFR Part 82, Subpart F.

The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the US EPA and the Department as required.

## Regulations

Rule 335-3-1-. 04

Rule 335-1-7-. 04

Rule 335-3-1-.04(1)

40 CFR Part 82

## General Permit Provisos

## Federally Enforceable Provisos <br> 26. Chemical Accidental Prevention Provisions

If a chemical listed in Table 1 of 40 CFR Part 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then:
(a) The owner or operator shall comply with the provisions in 40 CFR Part 68.
(b) The owner or operator shall submit one of the following:
(1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR Part 68 § 68.10(a) or,
(2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan.

## 27. Display of Permit

This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will be made readily available for inspection by any or all persons who may request to see it.
28. Circumvention

No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.

## 29. Visible Emissions

Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than $20 \%$ in any $60-$ minute period. At no time shall any source discharge a 6 -minute average opacity of particulate emissions greater than $40 \%$. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.

## Regulations

40 CFR Part 68

Rule 335-3-14-.01(1)(d)

Rule 335-3-1-. 10

Rule 335-3-4-.01(1)

## General Permit Provisos

Federally Enforceable Provisos

## 30. Fuel-Burning Equipment

(a) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-. 03.
(b) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Part 335-3-5-. 01 .

## 31. Process Industries = General

Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-. 04.

## 32. Averaging Time for Emission Limits

Unless otherwise specified in the permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.

## 33. Compliance Assurance Monitoring (CAM)

Conditions (a) through (d) that follow are general conditions applicable to emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the unit specific provisos and the attached CAM appendices.
(a) Operation of Approved Monitoring
(1) Commencement of operation. The owner or operator shall conduct the monitoring required under this section and detailed in the unit specific provisos and CAM appendix of this permit (if required) upon issuance of the permit, or by such later date specified in the permit pursuant to §64.6(d).
(2) Proper maintenance. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
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## Regulations

Rule 335-3-4-. 03

Rule 335-3-5-. 01

Rule 335-3-4-. 04

Rule 335-3-1-. 05


## General Permit Provisos

| Federally Enforceable Provisos | Regulations |
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(3) Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutantspecific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
(4) Response to excursions or exceedances.
(a) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

## General Permit Provisos

Federally Enforceable Provisos
(b) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(5) Documentation of need for improved monitoring. After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Department and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(b) Quality Improvement Plan (QIP) Requirements
(1) Based on the results of a determination made under Section 33(a)(4)(b) above, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with 40 CFR §64.6(c)(3), the permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutantspecific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutantspecific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.
(2) Elements of a QIP:
§64.8
Regulations

## General Permit Provisos



Regulations
(3) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Department if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
(4) Following implementation of a QIP, upon any subsequent determination pursuant to Section 33(a)(4)(b) above, the Department may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
(i) Failed to address the cause of the control device performance problems; or

## General Permit Provisos

Federally Enforceable Provisos $\quad$ Regulations
(ii) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
(5) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.
(c) Reporting and Recordkeeping Requirements
(1) General reporting requirements
(i) On and after the date specified in Section 33(a)(1) above by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance with ADEM Admin. Code R. 335-3-16-.05(c)3.
(ii) A report for monitoring under this part shall include, at a minimum, the information required under ADEM Admin. Code R. 335-3-16-.05(c)3. and the following information, as applicable:
(I) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
(II) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

## General Permit Provisos

(2) General recordkeeping requirements.
(i) The owner or operator shall comply with the recordkeeping requirements specified in ADEM Admin. Code R. 335-3-16-.05(c)2.. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to Section 33(b) above and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
(ii) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

## General Permit Provisos

| Federally Enforceable Provisos | Regulations |
| :---: | :--- |
| (d) Savings Provisions | $\S 64.10$ |

(1) Nothing in this part shall:
(i) Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this part shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.
(ii) Restrict or abrogate the authority of the Department to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.
(iii) Restrict or abrogate the authority of the Department to take any enforcement action under the Act for any violation of an
applicable requirement or of any person to under the Act for any violation of an
applicable requirement or of any person to take action under section 304 of the Act.

## Regulations

§64.10
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## Summary Page for Facility-Wide Emissions

Permitted Operating Schedule:
24 Hours/Day x 365 Days/Year = 8760 Hours/Year

## Emission limitations:

## Emission Point \#

| Pollutant | Emission <br> Limit |
| :---: | :---: |
| $\mathrm{SO}_{2}$ | $<=245 \mathrm{Ton} / \mathrm{yr}$ |
| $\mathrm{NO}_{\mathrm{x}}$ | $<=245 \mathrm{Ton} / \mathrm{yr}$ |
| VOC | $<=245 \mathrm{Ton} / \mathrm{yr}$ |
| CO | $<=245 \mathrm{Ton} / \mathrm{yr}$ |

## Regulation

Rule 335-3-14-. 04
(Anti-PSD)
Rule 335-3-14-. 04
(Anti-PSD)
Rule 335-3-14-. 04
(Anti-PSD)
Rule 335-3-14-. 04
(Anti-PSD)

# Provisos for Facility-Wide Emissions 

## Applicability

Federally Enforceable Provisos

1. This facility has enforceable limits in order to prevent itfrom being subject to the provisions of ADEM Admin. Code $R$. 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas" [Prevention of Significant Deterioration (PSD)].
2. This facility meets the requirements specified in Rule 335-3-$16-.03$ and therefore this facility shall be subject to Rule 335-3-16 and this subpart of this permit.

## Emissions Standards

1. The Facility as a whole shall adhere to the following requirements:
(a) Sulfur Dioxide $\left(\mathrm{SO}_{2}\right)$ emissions shall not exceed 245 Ton per rolling 12 -month period.
(b) Nitrogen Oxide ( $\mathrm{NO}_{\mathrm{x}}$ ) emissions shall not exceed 245 Ton per rolling 12-month period.
(c) Volatile Organic Compound (VOC) shall not exceed 245 Ton per rolling 12 -month period.
(d) Carbon Monoxide (CO) shall not exceed 245 Ton per rolling 12 -month period.

Compliance and Performance Test Methods and Procedures

1. Each unit located at this located at this facility shall be tested in accordance with that unit specific subpart of this permit.

## Emission Monitoring

1. Each unit located at this facility shall be monitored according to the emissions plan outlined in that unit specific subpart of this permit.

Regulations

Rule 335-3-14-. 04
[Anti-PSD]

Rule 335-3-16-. 03

Rule 335-3-16-.05(a) \& Rule 335-3-14-. 04
[Anti-PSD]

Rule 335-3-16-.05(c)(1)(i)
\& Rule 335-3-1-. 05

Rule 335-3-16-.05(c)(1),
Rule 335-3-1-.04, \&
Rule 335-3-16-.05(c)(1)(ii)

## Provisos for Facility-Wide Emissions

2. Monthly calculations as described in proviso 1 of the recordkeeping and reporting section of this subpart of this permit shall be performed, maintained, and compared with the limits outlined in proviso 1 of the emission standards section of this subpart of this permit.

## Recordkeeping and Reporting Requirements

1. For the purpose of indicating compliance with proviso 1 of emission standards subpart of this permit, a monthly record of the following information shall be maintained and made available for inspection for a period of five (5) years:
(a) Monthly calculations of the facility-wide emissions shall be performed using:
(1) Monthly CO, $\mathrm{NO}_{\mathrm{x}}$, and VOC emissions from all engines, as calculated in proviso 1(d)(6) of the Recordkeeping and Reporting section of the Facility Engines subpart of this permit.
(2) Monthly $\mathrm{CO}, \mathrm{NO}_{\mathrm{x}}, \mathrm{VOC}$, and $\mathrm{SO}_{2}$ emissions from all flares, as calculated in proviso 1(c) of the Recordkeeping and Reporting section of the Well Flares subpart of this permit.
(b) The facility-wide emissions in Ton/Month shall be calculated as follows:
(1) $\quad$ CO emissions (Tons/Month) $=$

Total Engine CO (Tons/Month) +
Total Flare CO (Tons/Month)
(2) $\quad$ NOX emissions (Tons/Month) $=$ Total Engine $\mathrm{NO}_{\mathrm{x}}$ (Tons/Month) + Total Flare $\mathrm{NO}_{\mathrm{x}}$ (Tons/Month)
(3) $\quad \mathrm{SO}_{2}$ emissions (Tons/Month) $=$ Total Engine $\mathrm{SO}_{2}$ (Tons/Month) + Total Flare $\mathrm{SO}_{2}$ (Tons/Month)
(4) $\quad$ VOC emissions (Tons/Month) $=$ Total Engine VOC (Tons/Month) + Total Flare VOC (Tons/Month)
(c) The facility-wide emissions in Ton/12-Months shall be calculated as follows:

Rule 335-3-16-.05(c)(1),
Rule 335-3-1-.04, \&
Rule 335-3-16-.05(c)(1)(ii)

Rule 335-3-16-.05(c)(2)
\& Rule 335-3-1-. 04

# Provisos for Facility-Wide Emissions 

(1) $\quad \mathrm{CO}$ emission (Tons/12-Months) $=$ $\sum$ of previous 11 month's CO emissions (Tons/Month) + current month's CO emissions (Tons/Month)
(2) $\quad \mathrm{NO}_{\mathrm{x}}$ emission (Tons/12-Months) $=$ $\sum$ of previous 11 month's $\mathrm{NO}_{\mathrm{x}}$ emissions (Tons/Month) + current month's NOx emissions (Tons/Month)
(3) $\quad \mathrm{SO}_{2}$ emission (Tons/12-Months) $=$ $\sum$ of previous 11 month's $\mathrm{SO}_{2}$ emissions (Tons/Month) + current month's $\mathrm{SO}_{2}$ emissions (Tons/Month)
(4) $\quad$ VOC emission (Tons/12-Months) $=$ $\sum$ of previous 11 month's VOC emissions (Tons/Month) + current month's VOC emissions (Tons/Month)
(d) The frequency of the calculations may be modified upon Departmental approval.
(e) The date, starting time and duration of each deviation from the requirements specified in proviso 1 of the Emission Standards subpart of this permit along with the cause and corrective actions taken.
2. Monitoring reports meeting the requirements specified in proviso 3(a) through (d) of this section of this subpart shall be submitted to the Department.
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions. A deviation shall mean any instance in which emission limits, emission standards, and/or work practices were not complied with, as indicated by observations, data collection, and monitoring specified in this permit. Some examples of deviations are:
(1) The total facility emissions exceeded required the pollutant emission limits.
(2) Calculations were not performed appropriately, or at the appropriate frequency.
(3) Appropriate records were not kept

Rule 335-3-16-.05(c)(3)(i)
\& Rule 335-3-14-. 04
[Anti-PSD]

# Provisos for Facility-Wide Emissions 

(4) There was a failure to take immediate corrective actions when a deviation was determined to have occurred
(b) Each report shall cover a calendar semi-annual period and shall be submitted within thirty days of the end of each reporting period. Each report shall include the following information each deviation and/or excess emissions event and/or malfunction:
(1) Emission source description
(2) Permit requirement
(3) Date
(4) Starting time
(5) Duration
(6) Actual quantity of pollutant or parameter
(7) Cause
(8) Actions taken to return to normal operating conditions
(9) Total operating hours of the affected source during the reporting period
(10) Total hours of deviation events during the reporting period, including during start-ups, shutdowns, and malfunctions.
(c) If no deviation event occurred during the reporting period, a statement that indicates there were no deviations from the permit requirements shall be included in the report.
(d) The report content specified in provisos 3(a) and (b) of this section may be modified upon receipt of Departmental approval.
3. Each deviation from the requirements specified in this subpart, including those that occur during startups, shutdowns, and malfunctions, shall be reported to the Department in a manner that complies with proviso 15(b) and $21(\mathrm{~b})$ of the general proviso subpart of this permit.

Rule 335-3-16-.05(c)(2), Rule 335-3-1-.04, \&
Rule 335-3-16-.05(c)(3)(ii)

## Summary Page for the Facility Engines

## Existing MACT ZZZZ Engines <500 BHP:

Permitted Operating Schedule: 24 Hours/Day x 365 Days/Year = 8760 Hours /Year

## Emission limitations:

| Emission Point \# | Description | Pollutant | Emission Limit | Regulation |
| :---: | :---: | :---: | :---: | :---: |
| CS01, | Field Compressor Engine <br> Nos. 1, 2, \& 3: 384 BHP Gas- Fired, Two Stroke Lean Burn ICE [3 Units] | $\mathrm{NO}_{\mathrm{x}}$ | $6.80 \mathrm{lb} / \mathrm{hr}$ | Rule 335-3-14-. 04 |
| CSO2, |  |  |  | [Anti-PSD] |
| \& CSO3 |  | CO | $6.80 \mathrm{lb} / \mathrm{hr}$ | Rule 335-3-14-. 04 <br> [Anti-PSD] |
|  |  | VOC | $1.90 \mathrm{lb} / \mathrm{hr}$ | Rule 335-3-14-. 04 [Anti-PSD] |
|  |  | $\mathrm{SO}_{2}$ | None |  |
|  |  | Opacity | < 20\% | Rule 335-3-4-.01(1) |
|  |  |  | tant \& Limit as | y $\S 63.6603$ |
| 2101B | Power Oil Pump Engine at | $\mathrm{NO}_{\mathrm{x}}$ | $1.98 \mathrm{lb} / \mathrm{hr}$ | Rule 335-3-14-. 04 |
|  | Well 21-1: 163 BHP Gas- Fired, |  |  | [Anti-PSD] |
|  | Four Stroke Rich Burn ICE | CO | $2.00 \mathrm{lb} / \mathrm{hr}$ | Rule 335-3-14-. 04 |
|  | [1 Unit] |  |  | [Anti-PSD] <br> Rule 335-3-14-. 04 |
|  |  |  |  | [Anti-PSD] |
|  |  | $\begin{gathered} \mathrm{SO}_{2} \\ \text { Opacity } \end{gathered}$ | None < 20\% | Rule 335-3-4-.01(1) |

Pollutant \& Limit as set by $\S 63.6603$

## Provisos for the Facility Engines

Federally Enforceable Provisos

## Applicability

1. Each engine shall be subject to the requirements specified in Rule 335-3-16 of the Alabama Department of Environmental Management Administrative Code and to this subpart of this permit.
2. Each engine has enforceable limits in order to prevent them from being subject to the provisions of ADEM Admin. Code $R$. 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas" [Prevention of Significant Deterioration (PSD)].
3. Each engine shall be subject to the Area Source requirements of 40 CFR 63, Subpart ZZZZ and to this subpart of this permit.
4. Each unit is an existing stationary reciprocating internal combustion engine (RICE), according to the terms defined in 40 CFR 63.6675. All definitions laid out in 40 CFR 63.6675 shall apply.
5. Table No. 8 of 40 CFR 63 Subpart ZZZZ outlines the applicable portions of 40 CFR 63 Subpart A.

## Emissions Standards

1. Each engine shall comply with the following opacity standards:
(a) The following opacity requirements shall apply whenever a unit is in operation:
(1) Except for one 6-minute period during any 60minute period, the unit shall not discharge into the atmosphere particulate that results in an opacity greater than $20 \%$, as determined by a 6minute average.
(2) At no time shall the unit discharge into the atmosphere particulate that results in an opacity greater than $40 \%$, as determined by a 6 -minute average.
2. Engines CSO1, CS02, and CS03 shall each adhere to the following maintenance requirements from 40 CFR Part 63 Subpart ZZZZ Table 2d(6).

Regulations

Rule 335-3-16-. 03

Rule 335-3-14-. 04
[Anti-PSD]

40 CFR 63.6580, 8 40 CFR 63.6585(a) \& (c)

40 CFR 63.6580,
40 CFR 63.6585(a) \& (c),
40 CFR 63.6590(a)(1)(iii),
40 CFR 60.6600(c), \&
40 CFR 63.6675
40 CFR 63.6665

Rule 335-3-4-.01(1)

40 CFR §63.6625(e)
40 CFR Part 63 Subpart
ZZZZ Table 2d(10)

## Provisos for the Facility Engines

Federally Enforceable Provisos
(a) Change oil and filter every 4,320 hours of operation or annually, whichever comes first.
(b) Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.
(c) Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.
3. Engines CSO1, CSO2, and CSO3 shall each comply with the following emission limits:
(a) $\quad \mathrm{NO}_{\mathrm{x}}$ emissions shall not exceed $6.80 \mathrm{lb} / \mathrm{hr}$
(b) CO emissions shall not exceed $6.80 \mathrm{lb} / \mathrm{hr}$
(c) VOC emissions shall not exceed $1.90 \mathrm{lb} / \mathrm{hr}$
4. Engine 2101B shall adhere to the following maintenance requirements from 40 CFR Part 63 Subpart ZZZZ Table 2d(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.
(c) Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.
5. Engine 2101B shall meet the following emission limits:
(a) $\quad \mathrm{NO}_{\mathrm{x}}$ emissions shall not exceed $1.98 \mathrm{lb} / \mathrm{hr}$
(b) CO emissions shall not exceed $2.00 \mathrm{lb} / \mathrm{hr}$
(c) VOC emissions shall not exceed $4.00 \mathrm{lb} / \mathrm{hr}$

Rule 335-3-16-.05(a) \&
Rule 335-3-14-. 04
[Anti-PSD]

40 CFR §63.6625(e)
40 CFR Part 63 Subpart ZZZZ Table 2d(10)

Rule 335-3-16-.05(a) \& Rule 335-3-14-. 04
[Anti-PSD]

## Provisos for the Facility Engines

Federally Enforceable Provisos

## Compliance and Performance Test Methods and Procedures

1. Compliance with the opacity requirements specified in proviso 1(b) of the Emission Standards section of this subpart of this permit shall be performed as needed utilizing either Method 9 or Method 22 of 40 CFR 60, Appendix A.
2. Each performance test shall meet the following requirements:
(a) Each performance test shall consist of three runs of at least 1-hour in duration.
(b) Testing for compliance with the limits shall utilize the following:
(1) $\mathrm{NO}_{\mathrm{x}}$ testing shall follow 40 CFR 60 Appendix A, Method 7 OR 7A OR 7B OR 7C OR 7D OR 7E
(2) CO testing shall follow 40 CFR 60 Appendix A, Method 10 OR Method 10A OR Method 10B
(c) Emission factors shall be determined during each test conducted in pounds per million BTU [lb/MMBTU].
(d) The pollutants tested for and the methods and procedures that are utilized may be modified upon receiving Departmental approval for the Anti-PSD limits.
3. The fuel gas for each unit shall be tested for BTU and hydrogen sulfide content in accordance to the requirements specified in proviso 3(a) and (b) of this section of this subpart.
(a) Each sample shall be analyzed for its BTU content by utilizing the ASTM Analysis Method D1826-77 or equivalent method.

> [ Fuel Gas BTU / Scf ]
(b) Each sample collected shall be analyzed utilizing the Tutwiler procedures found in 40 CFR $\S 60.648$ or the chromatographic analysis procedures found in ASTM E260 or the stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacture.
[ Fuel Gas ( $\mathrm{H}_{2} \mathrm{~S}$ ppmv)]

Regulations

Rule 335-3-16-.05(c)(1)(i)

Rule 335-3-16-.05(c)(1)(i)
Rule 335-3-1-.05, \&
40 CFR 63.6620(d)
Rule 335-3-16-.05(c)(1)(i)
Rule 335-3-1-.05, \&
Rule 335-3-14-. 04
[Anti-PSD]

Rule 335-3-16-.05(c)(1)(i)
Rule 335-3-1-.05, \&
Rule 335-3-14-. 04
[Anti-PSD]
Rule 335-3-16-.05(c)(1)(i)
Rule 335-3-1-.05, \&
Rule 335-3-14-. 04
[Anti-PSD]

Rule 335-3-16-.05(c)(1)(i)
Rule 335-3-1-. 05

## Provisos for the Facility Engines

Federally Enforceable Provisos
4. Compliance with the 40 CFR Part 63 Subpart ZZZZ maintenance standards specified in provisos 2 and 4 of the Emission Standards section of this subpart of this permit shall be shown by operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions, including recording the runtime of each engine, monthly.

## Emission Monitoring

1. A monitoring system that meets the requirements specified in the monitoring table of Appendix A shall be installed, maintained, and operated for each unit.

## Recordkeeping and Reporting Requirements

1. A record of the information specified in provisos 1(a) through (e) of this section of this subpart shall be maintained and made available in a form suitable for inspection for a period of five (5) years.
(a) The date, starting time and duration of each deviation from the requirements specified in this subpart along with the cause and corrective actions taken.
(b) The date, starting time and, and duration of each malfunction, along with steps taken to minimize emissions, and corrective actions taken.
(c) Date and type of engine maintenance that affects air emissions.
(d) For each unit, the following data shall be recorded and maintained onsite:
(1) Maintenance Records
(2) Operating hours of engine $=$ Operating Hours/Month
(3) A copy of the fuel gas $\mathrm{H}_{2} \mathrm{~S}$ and BTU analysis OR supplier's certification.
(4) Engine fuel consumption = Fuel MScf/Month
(5) Engine Fuel (MMBTU/Month) =

Regulations
40 CFR Part 63 Subpart
ZZZZ Table 6(9)

Rule 335-3-16-.05(c)(1), \&
Rule 335-3-14.-04
[Anti-PSD]

Rule 335-3-16-.05(c)(2), 40 CFR 63.6655(a)(1), \& 40 CFR 63.6660(a) \& (b)

Rule 335-3-16-.05(c)(2), 40 CFR 63.6655(a)(2) \& (5), \& 40 CFR 63.6660(a) \& (b)
Rule 335-3-16-.05(c)(2), 40 CFR 63.6655(a)(4), (d), (e)(2), \& (e)(3), \& 40 CFR 63.6660(a) \& (b) Rule 335-3-16-.05(c)(2), \& Rule 335-3-14-. 04 [Anti-
PSD]
40 CFR 63 ZZZZ
Table 6 (9)

## Provisos for the Facility Engines

## Federally Enforceable Provisos <br> [Engine Fuel (MScf/Month)] X [Fuel Heat Content (BTU/Scf)] 1000

(6) Unit $\mathrm{NO}_{\mathrm{x}}, \mathrm{CO}$, \& VOC emissions shall be determined as follows:
(i) Engine Emissions [Lbs/Month] = [Engine Fuel (MMBTU/Month)] X
[Test (Lbs/MMBTU) ]
(I) For $\mathrm{NO}_{\mathrm{x}}$ and CO, Test Lbs/MMBTU shall be equal to the most recent tests result.
(II) For VOC, Test Lbs/MMBTU shall be equal to the most recent tests result OR manufacturer's data.
(ii) Engine Emissions [Lbs/Hour] = Engine Emissions [Lbs/Month]
Engine operating hours [Hours/Month]
(7) Pollutant emissions in [Ton/Month] shall be utilized in the Facility-Wide Emissions subpart of this permit for the purpose of indicating compliance with the Facility-Wide Limit of 245 Ton per 12 -month period for $\mathrm{NO}_{\mathrm{x}}, \mathrm{CO}$, and VOC.
(i) Total Engine CO (Tons/Month) $=$ $\sum$ Engine CO emissions (Lbs/Month) [ 2000 Lbs/Ton ]
(ii) Total Engine $\mathrm{NO}_{\mathrm{x}}$ (Tons/Month) $=$ $\sum$ Engine NOx emissions (Lbs/Month) [ $2000 \mathrm{Lbs} / \mathrm{Ton}$ ]
(iii) Total Engine VOC (Tons/Month) = $\sum$ Engine VOC emissions (Lbs/Month) [ 2000 Lbs/Ton ]
(8) The frequency of these calculations may be modified upon Departmental approval.
(e) These records may be kept in electronic form, provided that they are readily accessible. Alternatively, they may be kept in hardcopy form.

Rule 335-3-16-.05(c)(2), \& 40 CFR 63.6660(a), (b), \& (c)

## Provisos for the Facility Engines

2. Monitoring reports meeting the requirements specified in proviso 2(a) through (d) of this section of this subpart shall be submitted to the Department for all units.
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions. A deviation shall mean any instance in which emission limits, emission standards, and/or work practices were not complied with, as indicated by observations, data collection, and monitoring specified in this permit.
(b) Each report shall cover a calendar semi-annual period and shall be submitted within thirty days of the end of each reporting period.
(c) If no deviation event occurred during the reporting period, a statement that indicates there were no deviations from the permit requirements shall be included in the report.
(d) The report content specified in provisos 2(a) thorugh (c) of this section may be modified upon receipt of Departmental approval.
3. Each deviation from the requirements specified in this subpart, including those that occur during startups, shutdowns, and malfunctions, shall be reported to the Department in a manner that complies with proviso $15(\mathrm{~b})$ and 21(b) of the General Permit Provisos subpart of this permit.

## Regulations

Rule 335-3-16-.05(c)(3)(i),
Rule 335-3-14-. 04
[Anti-PSD], \&
40 CFR 63.6650(a), (c), (e), \& (f)

Rule 335-3-16-.05(c)(2), Rule 335-3-16-.05(c)(3)(ii), 40 CFR 63.6640(b) \& (e), \& 40 CFR 6650(f)

## Summary Page for Facility Wells

Permitted Operating Schedule:
24 Hours/Day x 365 Days/Year = 8760 Hours $/$ Year

## Emission limitations:

| Emission Point \# | Description | Pollutant | Emission Limit | Regulation |
| :---: | :---: | :---: | :---: | :---: |

(23) Constructed wells (as of permit issuance)

CCL\&T 15-6, CCL\&T 15-8,
Overby 15-14, Stuart 15-15,
CCL\&T 16-14, CCL\&T 16-16,
McCreary 21-1, CCL\&T 21-4,
CCL\&T 21-10, CCL\&T 21-12,
Pugh 22-2, Pugh 22-3,
Pugh 22-12,
Johnston Estate 22-16,
CCL\&T 27-1, CCL\&T 27-10,
CCL\&T 27-11, U.L. Jones 28-7
Johnston Trust 28-16,
Overbey 28-14, CCL\&T 33-2,
CCL\&T 33-4, Jones 34-4
(2) Unconstructed wells (as of permit issuance)

27-NW \& 28-NE
(25) Well Flares:

| @ Available Sulfur |  |  |
| :--- | :--- | :--- |
| $==10$ LTons/Day | $\mathrm{SO}_{2}$ | As set by rule* | Rule 335-3-5-.03(3)

(25) Wellheads:

Each Hydraulically
Fractured or Re-Fractured well
( 0 as of permit issuance)

VOC Work Practices §60.5365a per §60.5375a
$\mathrm{H}_{2} \mathrm{~S} \quad 20 \mathrm{ppbv}$ of $\mathrm{H}_{2} \mathrm{~S}$ off site

As set by rule*
Rule 335-3-5-.03(2)

None*
None*
None*
*See Facility-Wide limit of 245 Ton/yr one 6 min avg> 20\%

No 6 min avg.
> 40\%

| Emission <br> Point \# | Description | Pollutant | Emission <br> Limit | Regulation |
| :---: | :---: | :---: | :---: | :---: |

## (25) Sites

Each wellsite-wide grouping of valves, connectors, flares, pressure relief devices, covers, closed vent systems, tank hatches, compressors, and other equipment in VOC use, constructed or reconstructed after September 18, 2015. ( 1 as of permit issuance: CCL\&T 33-4)

## Provisos for Facility Wells

Federally Enforceable Provisos
Applicability

1. The wells share an enforceable limit in order to prevent
the facility from being subject to the provisions of ADEM
Admin. Code R. 335-3-14-.04, "Air Permits Authorizing
Construction in Clean Air Areas" [Prevention of
Significant Deterioration (PSD)].
2. Each source listed on the summary page is subject to Rule 335-3-16.
3. Each well that flares gas that contains more than 0.10 grains of hydrogen $\left(\mathrm{H}_{2} \mathrm{~S}\right)$ per standard cubic foot (Scf) shall be subject to ADEM Admin. Code R. 335-3-5-. 03.
4. Each well shall be subject to 40 CFR Part 64, and the conditions of General Permit Provisos 33 apply.
5. The requirements of 40 CFR 60 Subpart OOOOa apply as follows to sources which commenced construction, reconstruction, or modification after September 18, 2015, for which applicable definitions are listed in §60.5430a:
(a) Each well conducting a well completion operation following hydraulic fracturing or refracturing. §60.5375.
(b) Each collection of fugitive emissions components as defined in $\S 60.5430$ a shall comply with the requirements of $\S 60.5397 \mathrm{a}$.

## Emission Standards

1. The following requirements shall apply to each source subject to 40 CFR 60 Subpart OOOOa:
(a) Each hydraulically fractured or refractured well completion operation shall follow the methods and procedures specified in $\S 60.5375 a(\mathrm{a}) \&(\mathrm{f})$.

Regulations

Rule 335-14-. 04 [Anti-PSD]

Rule 335-3-16-. 03

Rule 335-3-5-.03(1)

40 CFR Part 64 [CAM]

40 CFR §60.5365a(a)

40 CFR §60.5365a(a) \& (f)

## Provisos for Facility Wells

## Federally Enforceable Provisos

(b) All detected sources of fugitive emissions, defined as any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of 500 ppm (methane or VOC) or greater using Method 21, observed from any collection of fugitive emissions components shall be repaired as per $\S 60.5397 \mathrm{a}(\mathrm{h})$.
2. In order to follow the CAM plan requirements in Appendix $B$ of this permit, each well site shall be equipped with a flare and shall be designed such that all produced natural gas, including tank vapor, must be routed either to the flare, fuel gas system, or plant pipeline at all times.
(a) Each flare shall be equipped, and operated, with:
(1) An Air Assist system
(2) A spark igniter or continuous pilot light
(b) Natural gas shall not be emitted into the atmosphere unless it is properly burned except when unsafe or technically infeasible, such as during the initial flowback stage of well completion.
(c) The flare at each well shall meet the following opacity standards:
(1) Except for one 6-minute period during any 60 -consecutive minute period, each flare shall not discharge into the atmosphere particulate that results in an opacity greater than $20 \%$, as determined by a 6 -minute average.
(2) At no time shall each flare discharge into the atmosphere particulate that results in an opacity greater than $40 \%$, as determined by a 6-minute average.
3. Each process gas stream containing more than 0.10 of a grain of hydrogen sulfide per Scf shall not be emitted into the atmosphere unless it is properly burned to maintain the ground level concentrations of hydrogen sulfide to less than twenty (20) parts per billion beyond plant property limits, averaged over a thirty (30) minute period.

Regulations
40 CFR §60.5397a(h)

Rule 335-3-14-. 04
[Anti-PSD]
40 CFR §64.2

Rule 335-3-14-. 04
[Anti-PSD]

Rule 335-3-4-.01(1)(a)

Rule 335-3-4-.01(1)(b)

Rule 335-3-5-.03(2)

## Provisos for Facility Wells

Compliance and Performance Test Methods and Procedures

1. Visible emissions observations shall be conducted using either Method 9 OR Method 22 of Appendix A of 40 CFR Part 60.
2. Each well gas sample shall be analyzed using the following methods and procedures:
(a) For $\mathrm{H}_{2} \mathrm{~S}$ Content, while utilizing the Tutwiler procedures in $40 \mathrm{CFR} \$ 60.648$ or the chromatographic analysis procedures in ASTM E260 or the stain tube procedures in GPA 2377-86 or those provided by the stain tube manufacture.
[ SG Stream ( $\mathrm{H}_{2} \mathrm{~S}$ Mole \%) ]
(b) For VOC mole percent, Molecular Weight, and BTU Content, while utilizing the chromatographic analysis procedures in 40 CFR Part 60 Appendix A, Method 18, Method 25A, ASTM Method D182677 , or equivalent methods and procedures.
[ SG Stream (VOC Mole\%)]
[ SG Stream (Mole Wt) ]
[ SG Stream (BTU/Scf)]
(c) The analysis methods used, monitoring locations, sampling frequencies, components tested for, etc., may be altered upon receipt of Department approval.
3. Newly fractured or refractured wells must be logged as in §60.5375a(b) and determine initial compliance as per $\S 60.5410 \mathrm{a}(\mathrm{a})$ [ $860.5375 \mathrm{a}(\mathrm{c})$ ] and continuing compliance as per $\S 60.5415 a(\mathrm{a})$ [ $\S 60.5375 \mathrm{a}(\mathrm{d})]$.
4. Upon completion of a well, the facility shall submit a request for a Temporary Authorization to Operate including information. This notification will also satisfy the notification requirement from §60.5420a(a)(2) [§60.5375a(e)] for hydraulically fractured/refractured well completion operations.

Regulations

Rule 335-3-16-.05(c)(1)(i) \&
Rule 335-3-1-. 05

Rule 335-3-16-.05(c)(1)(i) \& Rule 335-3-1-. 05

40 CFR §60.5375a

Unconstructed Wells:
Rule 335-3-14-.01(f)
NSPS OOOO Wells:
40 CFR §60.5375a(c) \& (e), 40 CFR §60.5410a(a)(1), \& 40 CFR §60.5420a(a)(2)(ii)

## Provisos for Facility Wells

(3) Driving directions to the site OR a map showing the roads
5. For each collection of fugitive emissions components, develop an emissions monitoring plan in accordance with §60.5397a(c)-(e).

## Emission Monitoring

1. Monitoring meeting the requirements specified in Appendix B of this permit shall be utilized for the all flares.
2. Compliance with visible emissions standard shall be demonstrated by either:
(a) A daily visual inspection of the flare shall be undertaken.
(b) If during this inspection, visible emissions are observed, then a visible emissions observation as outlined in Appendix C shall be undertaken for the appropriate type flare.
3. Each collection of fugitive emissions components shall be monitored for fugitive emissions initially within 60 days of startup as specified in $\S 60.5397 a(f)(1)$ and semiannually thereafter as specified in $\S 60.5397 \mathrm{a}(\mathrm{g})$.
4. Each gas stream that can be combusted in a flare or as fuel gas shall have a sample of the gas stream collected at a frequency of no less than once every six months, though a single sample of combined gas streams captured at a common point may satisfy this for multiple gas streams.

Record Keeping and Reporting Requirements

1. For the purpose of demonstrating compliance with provisos 1 through 4 of the Emission Standards section of this subpart, a monthly record of the information specified in provisos $1(\mathrm{a})$ through (h) of this section of this subpart shall be maintained and made available for inspection for each flare for a period of five (5) years.

Regulations

40 CFR §60.5397a(b)

Rule 335-3-16-.05(c)(1),
r. 335-3-16-.05(c)(1)(ii),
r. 335-3-14-. 04 [Anti-PSD]
\& 40 CFR §64.6(b) \& (c)
Rule 335-3-16-.05(c)(1)
r. 335-3-1-.04, \&
r. 335-3-16-.05(c)(1)(ii)

40 CFR $\S 60.5397 \mathrm{a}(\mathrm{b})-(\mathrm{g})$

## Provisos for Facility Wells

(a) For each gas stream that can be flared:
(1) A copy of each gas analysis for the stream OR a copy of each gas analysis for the stream in conjunction with another stream, including:
(i) Stream heating value (MMBtu/MMscf)
(ii) Stream VOC molecular weight (LbVOC/Lb-Mole)
(2) Volume of gas burned in flare = [ Stream Volume Burned (MScf/Month) ]
(3) Stream $\mathrm{H}_{2} \mathrm{~S}(\mathrm{Mol} \%)$
(b) For each flare:
(1) Flare VOC (Lbs/Month) =
[Flare Feed (MScf/Month] X [Flare VOC MW (LbVOC/LbMol)] X [2.62695 LbMol/MScf] X [1- (0.98 destruction efficiency)]
(2) Flare CO (Lbs/Month) = [Flare (MMBtu/Month) ] X [ (0.37 Lbs. CO /MMBtu) ]
(3) Flare $\mathrm{NO}_{\mathrm{X}}($ Lbs $/$ Month $)=$ [Flare (MMBtu/Month) ] X [ (0.068 Lbs. NOx /MMBtu) ]
(c) The total emissions for all flares shall be calculated as follows:
(1) Total Flare CO (Tons/Month) $=$ $\frac{\sum \text { Flare CO emissions (Lbs/Month) }}{[2000 \text { Lbs/Ton }]}$ [ 2000 Lbs/Ton ]
(2) Total Flare $\mathrm{NO}_{\mathrm{x}}$ (Tons/Month) $=$ $\Sigma$ Flare NOX emissions (Lbs/Month) [ $2000 \mathrm{Lbs} / \mathrm{Ton}$ ]
(3) Total Flare VOC (Tons/Month) = $\sum$ Flare VOC emissions (Lbs/Month)

## Provisos for Facility Wells

## [ 2000 Lbs/Ton ]

(d) The frequency of the calculations may be altered upon receipt of Departmental approval.
(e) The date, starting time, duration, and results of all flare visible emissions observations or flare inspections.
(f) The date, starting time, and duration of each deviation or exceedance of the requirements specified in this subpart, along with the emissions, cause and corrective actions taken.
(g) A copy of all records required by 40 CFR 60 Subpart OOOOa, as specified in §60.5420a.
(h) The frequency of the recordkeeping period may be altered upon receipt of Departmental approval.
2. Periodic Monitoring Reports meeting the requirements specified in proviso 2(a) through (c) of this section of this subpart shall be submitted to the Department.
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions.
(b) Each report shall cover a calendar semi-annual period and shall be submitted within thirty days of the end reporting period.
(c) If no deviation event occurred during the reporting period, a statement that indicates there were no deviations from the permit requirements shall be included in the report.
(d) The report content and format in proviso 2(a) through (c) of this section may be modified upon receipt of Departmental approval.
3. An Annual LDAR Report should be submitted to the Department and EPA as follows:

Regulations

Rule 335-3-16-.05(c)(2),
r. 335-3-14.04 [Anti-PSD]
r. 335-3-1-.04, \&

40 CFR 864.9
Rule 335-3-16-.05(c)(2),
r. 335-3-14.04 [Anti-PSD], \&
r. 335-3-1-. 04

Rule 335-3-16-.05(c)(2),
r. 335-3-14.04 [Anti-PSD]
r. 335-3-1-.04, \&

40 CFR §64.9

40 CFR 60.5420a

Rule 335-3-16-.05(c)(2) \&
Rule 335-3-1-. 04
Rule 335-3-16-.05(c)(2), r. 335-3-16-.05(c)(3)(i), r. 335-3-14-. 04 [Anti-PSD] \& 40 CFR $\$ 64.9$

40 CFR 60.5420a

## Provisos for Facility Wells

## Federally Enforceable Provisos

(a) A copy of each fugitive emissions survey within the stipulated reporting period.
(b) Each Annual LDAR report shall include the information listed in §60.5420a(b)(1) \& (7)(i)-(xii). If an applicable well completion operation occurred in the reporting period, the report shall also include the information listed in $\S 60.5420 \mathrm{a}(\mathrm{b})(2)$
(c) LDAR reports shall be annual and submitted to the Department by mail and to EPA by their CEDRI website (https://cdx.epa.gov/) as per §60.5420a(b)(11) on the following schedule or as otherwise approved by the Department:
Reporting October 25 - Submission January 22
Period: October 24 Date:
4. Each deviation from the requirements, including those that occur during start ups, shut downs, and malfunctions, shall be reported to the Department in a manner that complies with proviso $15(\mathrm{~b})$ and $21(\mathrm{~b})$ of the General Provisos subpart of this permit.

Rule 335-3-16-.05(c)(3)(ii)

## Appendix A: Facility Engines Monitoring

## Each Facility Engine

## Monitoring approach:

## I. Indicator

A. Measurement approach

## II. Indicator range

A QIP threshold

## III. Performance criteria

A. Data representiveness
B. Verification of operational status
C. QA/QC practices \& critera

## Calculated Pollutant emissions in lb/hr \& Ton/ 12-months

Fuel gas volume to each unit shall be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculation.

BTU \& $\mathrm{H}_{2} \mathrm{~S}$ content of fuel gas stream shall be determined annually, or at a frequency determined by the Department.
NOx \& CO emission factors were determined during the initial performance tests for each engine.
VOC emission factors shall be either manufacturer's emission factors or AP-42 factors.

Pollutant Emissions shall be maintained at < = to the limits listed in the following table:

| Emission Point | Unit Rating (BHP) | NOx (lb/hr) | $\mathbf{C O}(\mathbf{l b / h r})$ | MACT ZZZZ | VOC (lb/hr) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| CSO1, CSO2, $8 \mathbf{C S O 3}$ | 384 (each) | 6.80 | 6.80 | $\mathbf{A s}$ set by | 1.90 |
| 2101 B | 163 | 1.98 | 2.00 | $\$ 63.6603$ | 4.00 |

A deviation is defined as anytime the calculated emission rate exceeds the respective allowed emission rates
A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days.
Not applicable

Fuel gas volume monitor shall be located immediately upstream of the engine.
Fuel gas $B T U \& H_{2} S$ content shall be determined from samples that are representative of the fuel gas being consumed.
Performance tests shall be undertaken while engine is being operated at normal loads.
Not applicable

The fuel gas volume monitor shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is calibrated accurately, or at least annually whichever is more frequent.

If the fuel gas monitor fails its calibration tests, the fuel gas monitor shall be taken out of service until repairs and/or replacements are made and a new calibration test is undertaken and passed.

## Each Facility Engine

| Monitoring approach: | Periodic monitoring |
| :---: | :---: |
| D. Monitoring frequency | Fuel gas volume measured continuously. |
|  | Fuel gas BTU content shall be determined annually, or at a frequency set by the Department. |
|  | Performance tests shall be undertaken utilizing the following applicable methods outlined in proviso 2 of the compliance $\&$ performance test methods \& procedures as: (1) required by the Department, (2) as necessary to demonstrate compliance, or (3) as required by 40 CFR 63 Subpart ZZZZ. |
| Data collection procedure | Calculate: Monthly, or as set by the Department, |
|  | Pollutant emissions in $\mathrm{lb} / \mathrm{hr}$ \& Ton/ 12 -months, while utilizing the fuel volume, BTU content, emission factor and operating hours |
|  | Fuel gas volume consumed |
|  | Equations listed in proviso 1 of the recordkeeping \& reporting section of the Facility Engines subpart of this permit shall be utilized in the pollutant emissions calculations. |
|  | Record: Monthly, or as set by the Department |
|  | Fuel gas volume consumed, Hours of operation, \& Pollutant emissions |
|  | Record: Each occurrence |
|  | Fuel gas BTU \& $\mathrm{H}_{2} \mathrm{~S}$ content determination |
|  | Time, date and results of each inspection and corrective actions taken |
| Averaging period | Monthly, or as set by the Department, \& Rolling 12-months |

## Appendix B: Each Well Flare Monitoring

## Each Well Flare

## Monitoring approach:

## I. Indicator

A. Measurement approach
II. Indicator range

A QIP threshold

## III. Performance criteria

A. Data representiveness
B. Verification of operational status

## Compliance Assurance Monitoring [CAM]

## Operate flare with a flame present at all times when a

 process gas stream may be sent to it.The flare tip shall be equipped with a continuously burning pilot light that is monitored with either a thermocouple or an equivalent device or by visual observation.

## Presence of a flame at flare tip

A deviation is defined as when there was no flame present at the flare tip when a process gas stream was vented to it.

A deviation triggers an immediate inspection and corrective actions that meet the requirements of 40 CFR Part 64.7(d) and reporting within 48 hours or two work days.

If the accumulated hours of deviation events occurring exceeds $5 \%$ of the flare's operating time during any quarterly reporting period, a Quality Improvement Plan shall be developed and implemented.

The flame monitor shall be located at the flare tip and focused on the area where gas exits the flare tip.

Visual observations shall be made from the location that provides the best view of the flare tip and/or flare pilot lights or flare igniter.

Not applicable

Total well gas flared

Each flares' gas volume shall be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculation or estimated utilizing material balances, computer simulations, special testing, etc.

The total facility emissions for any criteria pollutant on a tons-per-12-months basis, calculated monthly, shall not exceed 245 TPY.

A deviation is defined as when the rolling 12 -month average of any criteria pollutant exceeds 245 TPY for the facility, including flare emissions.

A deviation triggers an immediate inspection, corrective action, and reporting within two work days.

Exceeding 225 TPY of any criteria pollutant for the facility, including well emissions, is not a deviation but triggers a report to the Department within two work days indicating how the Permittee intends to avoid exceeding 245 TPY the next month.

Not applicable

Flare gas volume monitors shall be located immediately upstream of each flare.

Provided multiple streams share a common flare, the flare gas volume monitor may be placed at this point.

Not applicable

## Each Well Flare

C. QA/QC practices $\&$ criteria
D. Monitoring frequency

Data collection procedure

Averaging period

## Periodic Monitoring

The flame monitor shall be maintained and calibrated in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is properly maintained and calibrated accurately, or at least annually whichever is more frequent..

Repairs and/or replacements shall be made immediately when non-functioning or damaged parts are found.

Pilot flame shall be monitored either continuously with a thermocouple or daily with visual inspections if operating staff is on site

Record time, date and duration of each incident of when no flame was present at the flare tip when a process gas stream was sent to it

Record time, date and results of each visual observation.
Record time, date and results of each calibration.
Record: Each Occurrence:
Date and results of each inspection and corrective actions taken.

Instantaneous

Each volume monitor shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent.

If the flare gas volume monitor fails its calibration tests, the volume monitor shall be taken out of service until repairs and/or replacements are made and a new calibration test is undertaken and passed.

Flare gas production volumes shall be monitored continuously.

Record: Daily
Well gas flared volume (in Mscf/Day)
Total gas volume sold [in MMScf/Day]

## Record: Each Occurrence:

Date and results of each inspection and corrective actions taken.

Daily

NOTE: The CAM plan would satisfy the flare monitoring provisions of NSPS OOOO as found in §60.5417(d)(1)(iii).

## Appendix C: Opacity Monitoring

## Well Flares - Opacity



