MAJOR SOURCE OPERATING PERMIT

Permittee: **W&T Offshore, Inc.**

Facility Name: **Mobile Bay Northwest Gulf Field Offshore Gas Production Platform**

Facility No.: 503-0013

Location: Submerged Tracts 111, 112, & 131; Mobile Co., Mobile, 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 there under, 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: *TBD*
Effective Date: *TBD*
Expiration Date: *TBD*

Alabama Department of Environmental Management

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1. Transfer	
This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another, except as provided in Rule 335-3-16-.13(1)(a)5.	Rule 335-3-16-.02(6)
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.	Rule 335-3-16-.12(2)
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.	Rule 335-3-16-.05(e)
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.	Rule 335-3-16-.05(f)
(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.	Rule 335-3-16-.05(g)

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5. Termination for Cause	
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.	Rule 335-3-16-.05(h)
6. Property Rights	
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.	Rule 335-3-16-.05(i)
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.	Rule 335-3-16-.05(j)
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.	Rule 335-3-16-.05(k)
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.	Rule 335-3-16-.07(a)
10. Inspection and Entry	
Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized	Rule 335-3-16-.07(b)

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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. <u>Compliance Provisions</u>	
(a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.	Rule 335-3-16-.07(c)
(b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.	
12. <u>Compliance Certification</u>	
A compliance certification shall be submitted **annually within 60 days of the effective date of this permit.**	Rule 335-3-16-.07(e)
(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;	
(3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule	

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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 Air Division P.O. Box 301463 Montgomery, AL 36130-1463 and to: Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303	
13. <u>Reopening for Cause</u> 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)

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(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.	§22-28-16(d), Code of Alabama 1975, as amended
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:	Rule 335-3-1-.07(1) Rule 335-3-1-.07(2)
(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.	
(b) In the event that there is a breakdown of equipment or upset of process in such a manner as to cause, or is expected to cause, increased emissions of air contaminants which are above an applicable standard,	

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the person responsible for such equipment shall notify the Director within 24 hours or the next working day and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director shall be notified when the breakdown has been corrected.	
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.	§22-28-16(d), Code of Alabama 1975, as amended
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.	Rule 335-3-1-.08
18. Fugitive Dust	
(a) Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.	Rule 335-3-4-.02
(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;	

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(3) By paving;	
(4) By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;	
(c) 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.	Rule 335-3-16-.13 Rule 335-3-16-.14
20. Recordkeeping Requirements	
(a) Records of required monitoring information of the source shall include the following:	Rule 335-3-16-.05(c)(2)
(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	

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continuous monitoring instrumentation and copies of all reports required by the permit	
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).	Rule 335-3-16-.05(c)(3).
(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	
(a) 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.	Rule 335-3-1-.05(3) Rule 335-3-1-.04(1)
(b) 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.	
(c) 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.	Rule 335-3-1-.04
(2) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe	

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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.	
(4) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.	
(5) 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.	Rule 335-3-1-.04
(6) 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.	Rule 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.	Rule 335-3-1-.04(1)
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 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	40 CFR §82

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recovery equipment specified in 40 CFR 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 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.	
26. Chemical Accidental Prevention Provisions If a chemical listed in Table 1 of 40 CFR §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 §68 by the date provided in 40 CFR §68.10(a) or, (2) A certification statement that the source is in compliance with all requirements of 40 CFR §68, including the registration and submission of the Risk Management Plan.	40 CFR §68
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.	Rule 335-3-14-.01(1)(d)
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.	Rule 335-3-1-.10

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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 60 Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.	Rule 335-3-4-.01(1)
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 Rule 335-3-4-.03.	Rule 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 Rule 335-3-5-.01.	Rule 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 Rule 335-3-4-.04.	Rule 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.	Rule 335-3-1-.05
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	40 CFR §64.7
(1) *Commencement of operation*. The owner or	

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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.

(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 pollutant-specific 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

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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. (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	40 CFR §64.8
(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	

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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 pollutant-specific 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 pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

(2) Elements of a QIP:

(i) The owner or operator shall maintain a written QIP, if required, and have it available for inspection.

(ii) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

(I) Improved preventive maintenance practices.

(II) Process operation changes.

(III) Appropriate improvements to control methods.

(IV) Other steps appropriate to correct control performance.

(V) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(ii)(I) through (IV) above).

(3) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as

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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	
(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	40 CFR §64.9
(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:	

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(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

(III) A description of the actions taken to implement a QIP during the reporting period as specified in Section 33(b) above. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

(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).

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(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.	
(d) Savings Provisions	40 CFR §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	

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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 take action under section 304 of the Act.	
34. <u>Permit Shield</u>	
A permit shield exists under this operating permit in accordance with ADEM Admin. Code r. 335-3-16-.10 in that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance. The permit shield is based on the accuracy of the information supplied in the application for this permit. Under this shield, it has been determined that requirements listed as non-applicable in the application are not applicable to this source.	Rule 335-3-16-.10

Summary Page for the Production Platform Engines

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

Emission limitations:

Emission Point #	Description	Pollutant	Emission Limit	Regulation
B-CZZ-301	6,000 BHP, Gas Fired, Simple Cycle Combustion Turbine: Solar Model Centaur 60S-T7802	NO_X	6.81 Lbs/Hr	Rule 335-3-14-.04(9)(b) [PSD/BACT]
		CO	8.29 Lbs/Hr	Rule 335-3-14-.04(9)(b) [PSD/BACT]
		SO_2	150 ppmv OR	40 CFR §60.333(a)
		S	0.8% by weight	40 CFR §60.633(b)
B-ZAN-505	1,650 BHP Gas-Fired, Four Stroke Lean Burn ICE, Platform Electric Generator—Cooper (White Superior) Model 12GTLB	NO_X	7.3 lb/hr	Rule 335-3-14-.04 [Anti-PSD]
		CO	10.9 lb/hr	Rule 335-3-14-.04 [Anti-PSD]
		HAPS	Applicable Work Practice	40 CFR §63.6603(a) Table 2d (No. 8) 40 CFR 63 Subpart ZZZZ
B-ZAN-506	1,650 BHP Gas-Fired, Four Stroke Lean Burn ICE, Platform Electric Generator—Cooper (White Superior) Model 12GTLB	NO_X	7.3 lb/hr	Rule 335-3-14-.04 [Anti-PSD]
		CO	10.9 lb/hr	Rule 335-3-14-.04 [Anti-PSD]
		HAPS	Applicable Work Practice(s)	40 CFR §63.6603(a) Table 2d (No. 8) 40 CFR 63 Subpart ZZZZ
BA-PBE-367 BA-PBE-368	400 BHP Diesel, RICE, Emergency Compression Engine—Randolph Model G400	HAPS	Applicable Work Practice(s)	§63.6602, Table 2(d) (No. 4)
B-ZAN-521	210 BHP Black Start Diesel Emergency Generator	HAPS	Applicable Work Practice(s)	§63.6602, Table 2(d) (No. 4)
B-CZZ-301 B-ZAN-505 B-ZAN-506 B-ZAN-521 BA-PBE-367 BA-PBE-368	All Units described above	Opacity	No more than one 6-min. avg. > 20% OR	Rule 335-3-4-.01(1)(a)
			No 6-min. avg. > 40%	Rule 335-3-4-.01(1)(b)

Provisos for the Production Platform Engines

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Applicability		
1.	These units are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permit*".	Rule 335-3-16-.03
2.	These units are subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions*".	Rule 335-3-4-.01
3.	Engine Nos. B-ZAN-505 and B-ZAN-506 have enforceable limits in place 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)*".	Rule 335-3-14-.04 [Anti-PSD]
4.	Turbine Engine No. B-CZZ-301 is subject to the applicable requirements of ADEM Admin. Code r. 335-3-14-.04, "*Air Permits Authorizing Construction in Clean Air Areas (Prevention of Significant Deterioration)*".	Rule 335-3-14-.04(9)(b) [PSD/BACT]
5.	Turbine Engine No. B-CZZ-301 is subject to the applicable requirements of 40 CFR Part 60, Subpart GG, "*Standards of Performance for Stationary Gas Turbines*".	Rule 335-3-10-.02(33) 40 CFR §60.330
6.	Engine Nos. B-ZAN-505 and B-ZAN-506 are subject to the applicable area source requirements of 40 CFR Part 63, Subpart ZZZZ, "*National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*" for remote stationary RICE.	40 CFR §63.6585 40 CFR §63.6590(a)(1)(iii) 40 CFR §63.6603(f)
7.	Engine Nos. B-ZAN-521, BA-PBE-367, and BA-PBE-368 are subject to the applicable area source requirements of 40 CFR Part 63, Subpart ZZZZ for emergency RICE.	40 CFR §63.6585 40 CFR §63.6590(a)(1)(iii)
8.	Engine Nos. B-ZAN-505, B-ZAN-506, BA-PBE-367, BA-PBE-368, and B-ZAN-521 are subject to the applicable requirements of 40 CFR Part 63, Subpart A, "*General Provisions*" as specified in §63.6665 and Table 8 of Subpart ZZZZ.	40 CFR §63.6665 Table 8 of Subpart ZZZZ

Provisos for the Production Platform Engines

Federally Enforceable Provisos	Regulations
Emission Standards	
1. Engine Nos. B-ZAN-505 and B-ZAN-506 shall comply with the following requirements:	
(a) Carbon monoxide (CO) emissions shall not exceed 10.9 Lbs/Hour.	Rule 335-3-14-.04 [Anti-PSD]
(b) Nitrogen oxide (NO) emissions shall not exceed 7.3 Lbs/Hour.	Rule 335-3-14-.04 [Anti-PSD]
(c) The work practice standards found in Table 2d of Subpart ZZZZ and as follows in provisos 1(c)(1) through (3):	40 CFR §63.6603(a) Table 2d (No. 8) 40 CFR 63 Subpart ZZZZ
(1) Change oil and filter every 2,160 hours of operation or annually, whichever comes first (you have the option of utilizing an oil analysis program in order to extend the specified oil change requirements as specified in 40 CFR §63.6625(j));	
AND	
(2) Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary;	
AND	
(3) Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
2. Engine Nos. B-ZAN-521, BA-PBE-367, and BA-PBE-368 shall comply with the following requirements:	
(a) The work practice standards found in Table 2d of Subpart ZZZZ and as follows in provisos 2(a)(1) through (3):	40 CFR §63.6603(a) Table 2d (No. 4) 40 CFR 63 Subpart ZZZZ

Provisos for the Production Platform Engines

Federally Enforceable Provisos	Regulations
(1) Change oil and filter every 500 hours of operation or annually, whichever comes first (you have the option of utilizing an oil analysis program in order to extend the specified oil change requirements as specified in 40 CFR §63.6625(j));	
AND	
(2) Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;	
AND	
(3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
3. Turbine Engine No. B-CZZ-301 shall meet the following emission standards:	
(a) Carbon monoxide (CO) emissions shall not exceed 8.29 Lbs/Hour.	Rule 335-3-14-.04(9)(b) [PSD/BACT]
(b) Nitrogen oxide (NO_X) emissions shall not exceed 6.81 Lbs/Hour.	Rule 335-3-14-.04(9)(b) [PSD/BACT]
(c) Sulfur emissions shall meet the sulfur standard in either proviso 3(c)(1) OR 3(c)(2) of this section of this subpart of this permit.	40 CFR §60.633
(1) The turbine shall not discharge any gases, which contain in excess of 150 ppmv of sulfur dioxide corrected to 15% oxygen and on a dry basis.	40 CFR §60.633(a)
OR	
(2) The turbine shall not burn any fuel containing total sulfur in excess of 0.8% by weight (8000 ppmw).	40 CFR §60.333(b)
(d) Unit B-CZZ-301 shall only burn sweetened natural gas as fuel.	Rule 335-3-14-.04(9)(b) [PSD/BACT]

Provisos for the Production Platform Engines

Federally Enforceable Provisos	Regulations
4. Each of these engines shall meet the requirements specified in 4(a) and (b) of this section of this subpart.	
(a) Except for one 6-minute period during any 60-minute period, the unit shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)
(b) At no time shall the engine discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
Compliance and Performance Test Methods and Procedures	
1. The requirements specified in provisos 1(a) and (b) of this section shall be utilized according to the frequency outlined in proviso 3 of the *emission monitoring* section of this subpart of this permit:	Rule 335-3-16-.05(c)(1)(i) 40 CFR §60.8
(a) NO_X and CO emissions shall be measured using the following methods:	
(1) For NO_X:	
(i) For Units B-ZAN-505 and B-ZAN-506: 40 CFR 60 Appendix A, Method 7 or 7A or 7B or 7C or 7D or 7E	Rule 335-3-1-.05
(ii) For Unit B-CZZ-301:	
(I) 40 CFR 60 Appendix A, Method 7E, and 40 CFR 60 Appendix A, Method 3 (or Method 3A), OR 40 CFR 60 Appendix A Method 20, OR ASTM D6522-00 as incorporated in 40 CFR §60.17.	40 CFR §60.335(a)(1) 40 CFR §60.335(a)(2) 40 CFR §60.335(a)(3)
(II) Sampling points shall be selected per §60.335(a)(4).	40 CFR §60.335(a)(4)

Provisos for the Production Platform Engines

Federally Enforceable Provisos	Regulations
(III) Any modification to these methods and procedures shall be in accordance with §60.335(a)(5).	40 CFR §60.335(a)(5)
(IV) Tests shall be conducted, and data analyzed utilizing the methods and procedures outlined in §60.335(b).	40 CFR §60.335(b)
(2) For CO:	
(i) For Units B-CZZ-301, B-ZAN-505, and B-ZAN-506: 40 CFR 60 Appendix A, Method 10 or 10A or 10B	Rule 335-3-1-.05
(ii) For Unit B-CZZ-301: Method ASTM D6522-00, as incorporated in §60.17, may also be used.	40 CFR §60.17(a)(84)
(3) For NO_X and CO: EPA's "Conditional Test Method (CTM-034)"	Rule 335-3-1-.05
(b) The flow rate shall be determined as follows:	
(1) When utilizing methods outlined in provisos 1(a)(1) and 1(a)(2):	Rule 335-3-1-.05
(i) 40 CFR 60 Appendix A, Method 1 or 1A	
(ii) 40 CFR 60 Appendix A, Method 2 or 2A or 2B or 2C or 2D or 2E	
(iii) 40 CFR 60 Appendix A, Method 3 or 3A or 3B or 3C	
(iv) 40 CFR 60 Appendix A, Method 4	
(v) 40 CFR 60 Appendix A, Method 19	
2. The fuel gas shall be tested for Btu and hydrogen sulfide content in accordance with the requirements specified in proviso 2(a) and (b) of this section of this subpart.	Rule 335-3-1-.05 40 CFR §60.334(h)(1)&(3) 40 CFR §60.334(i)(2)&(3)

Provisos for the Production Platform Engines

Federally Enforceable Provisos	Regulations
(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 §60.648 or the chromatographic analysis procedures found in ASTM E-260 or the stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacture. [Fuel Gas (H_2S ppmv)]	
(c) The frequency of analysis may be modified upon receiving Departmental approval.	
Emission Monitoring	
1. Monitoring meeting the requirements specified in Appendix A of this permit shall be utilized for each electric generator engine.	Rule 335-3-16-.05(c)(1)
2. When possible and practicable, a continuous metering system shall be utilized that is capable of continuously monitoring and recording the fuel gas flow rate to each engine.	Rule 335-3-16-.05(c)(1)
(a) The continuous measurement may be made with a single meter through which all of the fuel gas for identical make and model engines flow.	
(1) Calibration, maintenance and operation of metering system shall be performed in accordance with the manufacturer's specifications.	
(b) Volumetric flow of fuel gas streams that are not continuously measured shall be accounted for by utilizing special estimating methods (i.e. engineer estimates, material balance, computer simulation, special testing etc.).	
3. The requirements specified in proviso 3(a) through (d) of this section shall be complied with for Engine Nos. B-ZAN-505, B-ZAN-506, and B-CZZ-301:	Rule 335-3-16-.05(c)(1)

Provisos for the Production Platform Engines

Federally Enforceable Provisos	Regulations

(a) Provided a performance test has not been conducted on the engine in the last five (5) years, a performance test shall be conducted in accordance to the requirements specified in proviso 3(a)(1) and (2) of this section.

(1) A test shall consist of three runs of at least 1-hour in duration each that meets the requirements specified in proviso 3(a)(1)(i) and (ii) of this section of this subpart.

(i) Each run shall test for the emissions of CO and NO_X.

(ii) Each run shall be conducted in accordance with the appropriate reference methods and procedures specified in proviso 1(a)(1), 1(a)(2) and 1(b)(1) of the *compliance and performance test methods and procedures* section of this subpart.

(b) When appropriate, a performance test shall be conducted on each engine within six months of commencing or re-commencing operation.

(c) Except as provided for in proviso 3(c)(1) of this section of this permit, a periodic test shall be conducted on the engine in accordance with the requirements specified in proviso 3(c)(2) and (3) of this section of this subpart.

(1) A periodic test is not required if one of the following conditions occurs during the period denoted in either proviso 3(c)(1)(i) or 1(ii) of this section of this subpart.

(i) Provided the performance test required by proviso 3(a) of this section of this subpart has been undertaken on the unit during the last twelve (12) months.

Provisos for the Production Platform Engines

Federally Enforceable Provisos	Regulations
(ii) Provided the engine's accumulated operating time does not exceed 500 hours during the last twelve (12) months. (2) A periodic test shall be conducted within twelve (12) months of either the latest performance test or the latest periodic test. (3) Each test shall consist of one run of one hour in duration that complies with the requirements specified in proviso 3(c)(3)(i) and (ii) of this section of this subpart. (i) Each run shall test for emissions of CO and NO_X. (ii) Each run shall be conducted in accordance with the methods and procedures specified in proviso 1(a) and 1(b) of the *compliance and performance test methods and procedures* section of this subpart. (d) The pollutants tested for, the methods and procedures that are utilized, and the frequency of testing may be modified upon receiving Departmental approval.	
4. Btu and hydrogen sulfide content testing shall occur at a frequency of no less than once every twelve (12) months.	Rule 335-3-16-.05(c)(1)
5. The permittee shall determine the emission factor for each engine in pounds per million Btu during the required tests. [Test (Lbs/MMBtu)]	Rule 335-3-16-.05(c)(1)
6. A non-resettable hour meter must be installed on Engine Nos. BA-PBE-367, BA-PBE-368, and B-ZAN-521 if one is not already installed.	40 CFR §63.6625(f)
7. Continuous compliance with the emission limitations and operating limitation of Subpart ZZZZ shall be met if the applicable requirements specified in §63.6640 are complied with.	40 CFR §63.6640 40 CFR §63.6640(f) Table 6 (No. 9) of Subpart ZZZZ

Provisos for the Production Platform Engines

Federally Enforceable Provisos	Regulations
Recordkeeping and Reporting Requirements	
1. A record of the information specified in provisos 1(a) through (f) of this section of this subpart shall be maintained and made available for inspection.	Rule 335-3-16-.05(c)(2)
(a) The date, starting time, and duration of each deviation from the permit terms and conditions specified in this subpart along with the cause and corrective actions taken.	
(b) Date and type of engine maintenance that affects air emissions for each engine.	
(c) For each engine except BA-PBE-367, BA-PBE-368, and B-ZAN-521:	
(1) Engine fuel consumption [Engine Fuel (MScf/Month)]	
(2) Fuel gas heat content [Fuel Heat Content (Btu/Scf)]	
(3) Fuel gas hydrogen sulfide content [Fuel H_2S (ppmv)]	
(4) Engine Fuel (MMBtu/Month) = $\frac{\text{[Engine Fuel (MScf/Month)] X [Fuel Heat Content (Btu/Scf)]}}{1000}$	
(5) Engine operating hours = [Hours/Month]	
(6) Emissions [Lbs/Month] = [Engine Fuel (MMBtu/Month)] X [Test (Lbs/MMBtu)]	
(i) Test Lbs/MMBtu shall be equal to the most recent engine tests results.	
(7) Emissions [Lbs/Hour] = $\frac{\text{Emissions [Lbs/Month]}}{\text{Engine operating hours [Hours/Month]}}$	

Provisos for the Production Platform Engines

Federally Enforceable Provisos	Regulations
(d) The frequency of the calculations may be modified upon Departmental approval.	
(e) The initial and annual evaluation of the remote status of Engine Nos. B-ZAN-505 and B-ZAN-506.	40 CFR §63.6603(f)
(f) For Engine Nos. BA-PBE-367, BA-PBE-368, and B-ZAN-521, recordkeeping and reporting requirements are listed in §63.6655.	40 CFR §63.6655
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.	Rule 335-3-16-.05(c)(2) Rule 335-3-16-.05(c)(3)(i)
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions.	
(1) 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.	
(2) For each deviation event, the following information shall be submitted.	
(i) Emission source description	
(ii) Permit requirement	
(iii) Date	
(iv) Starting time of pollutant or parameter	
(v) Duration	
(vi) Actual quantity of pollutant or parameter	
(vii) Cause	

Provisos for the Production Platform Engines

Federally Enforceable Provisos	Regulations
(viii) Actions taken to return to normal operating conditions (ix) Total operating hours of the affected source during the reporting period (x) Total hours of deviation events during the reporting period (xi) Total hours of deviation events that occurred during start ups, shut downs, and malfunctions during the reporting period (b) 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. (c) Each report shall cover a calendar semi-annual period and shall be submitted within thirty days of the end of the reporting period. (d) The report content and format in proviso 2(a) through (c) of this section may be modified upon receipt of Departmental approval.	
3. Each deviation from the requirements specified in provisos 1 through 3 of the *emission standards* section of this subpart, 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(b) and 21(b) of the *General Permit Provisos* subpart of this permit.	Rule 335-3-16-.05(c)(3)(ii)

Summary Page for the Platform Emergency Flares

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

Emission limitations:

Emission Point #	Description	Pollutant	Emission Limit	Regulation
B-ZZZ-503 & B-ZZZ-514	High Pressure Flare & Low Pressure Flare	H_2S	20 ppbv of H_2S off site	Rule 335-3-5-.03(2)
		H_2S	No venting to atmosphere	Rule 335-3-5-.03(2)
		SO_2	≤ 245 TPY	Rule 335-3-14-.04 [Anti-PSD]
		Opacity	No more than one 6-min.avg. > 20% OR	Rule 335-3-4-.01(1)(a)
			No 6-min. avg. > 40%	Rule 335-3-4-.01(1)(b)
	TEG Unit	Benzene	< 0.90 Mg/year Controlled	40 CFR §63.764(e)(1)(ii)
Process gas streams with combustion device:				
B-ZZZ-503	Production & test gas/liquid separator, test gas/liquid separator, production liquid flash tank & Tri-ethylene Glycol Dehydration System with closed vent system and high pressure flare			
B-ZZZ-514	Flash gas compressor, fuel gas system, & closed drain sump with closed vent system and low pressure flare			

Provisos for the Platform Emergency Flares

Federally Enforceable Provisos	Regulations
Applicability	
1. The flares are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "*Major Source Operating Permit*".	Rule 335-3-16-.03
2. The flares are be subject to the applicable requirements of ADEM Admin. Code r. 335-3-4-.01, "*Control of Particulate Emissions – Visible Emissions*".	Rule 335-3-4-.01
3. This facility handles gas or refinery gas that contains more than 0.10 grains of hydrogen sulfide (H_2S) per standard cubic foot (Scf) and is subject to the applicable requirements of ADEM Admin. Code r. 335-3-5-.03, "*Control of Sulfur Compound Emissions – Petroleum Production*".	Rule 335-3-5-.03(1)
4. The flares have a limit in place 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)*".	Rule 335-3-14-.04 [Anti-PSD]
5. The Tri-ethylene Glycol Dehydration System (TEG) is subject to a benzene limit under 40 CFR Part 63, Subpart HH, "*National Emissions Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities*". All terms used in this subpart retain the same definitions given in 40 CFR §63.761.	Rule 335-3-11-.06(33) 40 CFR §63.760(b)(2)
6. The facility is subject to applicable requirements of 40 CFR Part 63, Subpart A, "*General Provisions*" as specified in Table 2 of 40 CFR Part 63, Subpart HH.	Rule 335-3-11-.06(1) 40 CFR §63.764(a)
7. The flares are subject to the applicable requirements of 40 CFR Part 64, "*Compliance Assurance Monitoring*", as described in General Proviso No. 33.	40 CFR Part 64
Emission Standards	
1. Sulfur dioxide (SO_2) emissions from the facility shall not exceed 245 tons in any twelve-month period.	Rule 335-3-14-.04 [Anti-PSD]
2. All process gas streams containing 0.10 of a grain of hydrogen sulfide per Scf shall be burned to the extent that the ground level concentrations of hydrogen sulfide shall be less than twenty (20) parts per billion by volume beyond plant property limits, averaged over a thirty (30) minute period.	Rule 335-3-5-.03(2)

Provisos for the Platform Emergency Flares

Federally Enforceable Provisos	Regulations
3. The flares shall meet the following opacity standards:	
(a) Except for one 6-minute period during any 60-minute period, the flares shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(a)
(b) At no time shall the flares discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average.	Rule 335-3-4-.01(1)(b)
4. The actual average annual benzene emissions from the glycol dehydration unit process vent shall be less than 0.90 megagrams per year (Mg/year), on a controlled basis.	40 CFR §63.764(e)(1)(ii)
Compliance and Performance Test Methods and Procedures	
1. The contents of the gas stream from each producing well and of the gas streams exiting the produced liquids flash tank shall be determined in accordance with the requirements specified in proviso 1(a) through (c) of this section of this subpart.	Rule 335-3-16-.05(c)(1)(i) Rule 335-3-1-.05
(a) The hydrogen sulfide content of each process stream shall be determined in accordance with the requirements specified in proviso 1(a)(1) of this section of this subpart.	
(1) The sample collected shall be analyzed utilizing the Tutwiler procedures found in §60.648 or the chromatographic analysis procedures found in ASTM E-260 or the stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacture. [Stream (H_2S Mole %)]	
(b) The Btu content and molecular weight of each process stream shall be determined in accordance with the requirements specified in proviso 1(b)(1) of this section of this subpart.	
(1) The sample collected shall be analyzed utilizing ASTM Analysis Method D1826-77, chromatographic analysis procedures found in 40 CFR Part 60 Appendix A, Method 18 or equivalent methods and procedures. [Stream (Btu/Scf)]	

Provisos for the Platform Emergency Flares

Federally Enforceable Provisos	Regulations
[Stream (Mole Wt)]	
(c) The total average mass benzene rate in megagrams per hour of each process stream entering the TEG shall be determined in accordance with the requirements specified in proviso 1(c)(1) of this section of this subpart.	40 CFR §63.772(b)(2)(ii)
(1) A representative sample of the stream shall be captured and analyzed using one of the following methods:	
(i) Method 18 of 40 CFR 60 Subpart A.	40 CFR §63.772(a)(1)(i)
OR	
(ii) ASTM D6240-99 (2004), incorporated by reference in 40 CFR §63.14, according to the requirements and restrictions laid out herein.	40 CFR §63.772(a)(1)(ii)
OR	
(iii) Other methods as allowed under 40 CFR §63.7(f).	40 CFR §63.772(b)(2)(ii)
(d) The frequency of this testing may be modified upon receipt of Department approval.	
2. For the purpose of demonstrating compliance with proviso 3 of the *emission standards* section of this subpart, methods and monitoring as specified in proviso 1 of the *emission monitoring* section of this subpart shall be undertaken.	
Emission Monitoring	
1. Monitoring systems meeting the requirements specified in Appendix B of this permit shall be utilized for the flare.	Rule 335-3-16-.05(c)(1) 40 CFR §64.9(b) & (c)
2. The contents of the gas stream from each producing well and of the gas streams exiting the produced liquids flash tank shall be determined in accordance with the requirements specified in proviso 2(a) and (b) of this section of this subpart.	Rule 335-3-16-.05(c)(1)
(a) The hydrogen sulfide content, Btu content, and molecular weight of each process stream shall be determined in accordance with the requirements specified in proviso 2(a)(1) of this section of this subpart.	
(1) A representative sample of the stream shall be captured and analyzed at least annually.	

Provisos for the Platform Emergency Flares

Federally Enforceable Provisos	Regulations
(b) Provided multiple process streams can be sent to the flare and it is possible to capture a common stream whose contents would be representative of all the streams, that common stream may be used instead of the individual process streams.	
(c) Each process gas stream that has to be vented to the atmosphere shall be captured and recycled to the process or the flare so that it can be burned.	
(1) Compliance shall be demonstrated by conducting a process flow design evaluation of the production facility in conjunction with a visual inspection of the facility.	
(2) Except when vessels and equipment are being de-pressured and/or emptied and the reduced pressure will not allow flow of the gas to a control device, the venting to the atmosphere of any process gas stream that is subject to this proviso for a duration in excess of 15 continuous minutes shall be deemed an exceedance of requirements specified in proviso 2 of the *emission standards* section of this subpart.	
(3) This requirement to capture process gas streams shall also apply to the pressure relief devices in the TEG system during periods that the vapor recovery system is shut down.	40 CFR §63.760(a)(1) 40 CFR §63.765(c)(1) 40 CFR §63.764(e)(1)(ii)
(d) The total average mass benzene rate in megagrams per hour of each process stream entering the TEG shall be determined in accordance with the requirements specified in proviso 2(d)(1) and (2) of this section of this subpart.	40 CFR §63.772(b)(2)(ii)
(1) This determination is required if:	
(i) Flaring related to the shutdown of the vapor recovery system occurs more than 10% of the time, based on operating hours, during a calendar quarter, OR	
(ii) There is a significant change in the manner of operation of the TEG system, the vapor recovery system, or the overall platform.	

Provisos for the Platform Emergency Flares

Federally Enforceable Provisos	Regulations
(2) During each flaring event related to the shutdown of the vapor recovery system, all of the inlet benzene content shall be counted as exiting through the TEG system by means of the pressure relief devices to the flare as controlled emissions. TEG Benzene Vent [Mg/Year]	40 CFR §63.764(e)(1)(ii) & ADI Control No. M070011
Recordkeeping and Reporting Requirements	
1. A record of the information specified in proviso 1(a) through (o) of this section of this subpart shall be maintained and made available for inspection.	Rule 335-3-16-.05(c)(2) 40 CFR §64.9
(a) The date, starting time and duration of each deviation from the permit terms and conditions specified in this subpart along with the cause and corrective actions taken.	
(b) Stream Molecular Weight [Stream (Mole Wt)]	
(c) Stream Btu Content [Stream (Btu/Scf)]	
(d) Results of each visual emission observation	
(e) Inlet wet gas volume [Well (MScf/Month)]	
(f) Stream (MMBtu/Month) = [Stream Volume Burned (MScf/Month)] X [1000 Scf/1 MScf] X [Stream (Btu/Scf)] X [1 MMBtu] / [1000000 Btu]	
(g) Stream H_2S (Lbs/Month) = [Stream Volume Burned (MScf/Day)] X [1000 Scf/MScf] X [1 Mole/380 Scf] X [{ Stream (H_2S Mole %) } / { 100 }] X [34 Lbs. H_2S/Mole H_2S]	
(h) Flare H_2S Feed Rate (Lbs/Month) = $\sum$ of Stream H_2S (Lbs/Month)	
(i) Number of hours that the flare was operated during the month = [Flare (Hours/Month)]	

Provisos for the Platform Emergency Flares

Federally Enforceable Provisos	Regulations
(j) Duration of each vapor recovery system shutdown per quarter = [Vapor Recovery System (Hours/Quarter)]	
(k) H_2S feed (Lbs/Hour) = $\frac{\text{Flare } H_2S \text{ Feed Rate (Lbs/Month)}}{\text{Flare (Hours/Month)}}$	
(l) Flare SO_2 Emissions (Lbs/Month) = $\frac{\text{SG } H_2S \text{ Feedrate (Lbs/Month)] X [64 Lbs. } SO_2\text{/Mole } SO_2\text{] X [0.98]}}{\text{[34 Lbs. } H_2S\text{/Mole } H_2S \text{]}}$	
(m) Flare SO_2 Emissions (Lbs/hr) = $\frac{\text{Flare } SO_2 \text{ Emissions (Lbs/Month)}}{\text{[Flare Op Hours (Hr/Month)]}}$	
(n) Flare SO_2 Emissions (Tons/Year) = SO_2 Emissions (Lbs/Month) X [1 Ton/2,000 Lbs] X [12 Months/Year]	
(o) Copies of all documentation related to each exemption determination.	40 CFR §63.774(d)(1)(ii)
2. Periodic and Excess Emissions Monitoring Reports meeting the requirements specified in proviso 2(a) through (d) of this section of this subpart shall be submitted to the Department.	Rule 335-3-16-.05(c)(2) Rule 335-3-16-.05(c)(3)(i)
(a) Each report shall identify each incidence of deviation from a permit term or condition including those that occur during startups, shutdowns, and malfunctions.	
(1) 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.	
(2) For each deviation event, the following information shall be submitted.	
(i) Emission source description	
(ii) Permit requirement	
(iii) Date	

Provisos for the Platform Emergency Flares

Federally Enforceable Provisos	Regulations
(iv) Starting time of pollutant or parameter (v) Duration (vi) Actual quantity of pollutant or parameter (vii) Cause (viii) Actions taken to return to normal operating conditions (ix) Total operating hours of the affected source during the reporting period (x) Total hours of deviation events during the reporting period (xi) Total hours of deviation events that occurred during start ups, shut downs, and malfunctions during the reporting period	
(b) 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.	
(c) Except as provided for in proviso 2(e) of this section, each Excess Emissions report shall meet the requirements specified in either §60.7(c) of 40 CFR Part 60, Subpart A.	
(d) Each report shall cover a calendar semi-annual period and shall be submitted within thirty days of the end of the reporting period.	
(e) The report content and format in proviso 2(a) through (d) of this section may be modified upon receipt of Departmental approval.	
3. Each deviation from the requirements specified in provisos 1 through 3 of the *emission standards* section of this subpart, including those that occur during start ups, shut downs, and malfunctions, shall be reported to the Department in a manner that complies with provisos 15(b) and 21(b) of the *General Permit Provisos* subpart of this permit.	Rule 335-3-16-.05(c)(3)(ii)

Appendix A: Production Platform Engines Monitoring

Each Production Platform Engine

Monitoring approach:	*Periodic monitoring*
I. Indicator	***Calculate NO_X & CO Emissions***
A. Measurement approach	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 content of fuel gas stream shall be determined annually, or at a frequency determined by the Department. Pollutant emission factors shall be determined during periodic and performance tests.
II. Indicator range	**Pollutant Emissions shall be maintained at < = to the limits listed in the following table:**

Emission Point	Unit Rating (BHP)	Catalytic Converter?	NO_X (lb/hr)	CO (lb/hr)
B-CZZ-301	**6000**	**No**	**8.29**	**6.81**
B-ZAN-505	**1650**	**No**	**7.3**	**10.9**
B-ZAN-506	**1650**	**No**	**7.3**	**10.9**

	A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two workdays.
A QIP threshold	Not applicable
III. Performance criteria	
A. Data representiveness	Fuel gas volume monitor shall be located immediately upstream of the engine. Fuel gas BTU 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.
B. Verification of operational status	Not applicable
C. QA/QC practices & criteria	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.
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 every 5 years. Periodic Tests shall be conducted at least once every year.
Data collection procedure	Calculate: Monthly, or as set by the Department, Pollutant emissions while utilizing the fuel volume, Btu content, emission factor and operating hours Fuel gas volume consumed Record: Monthly, or as set by the Department Fuel gas volume consumed Hours of operation. Pollutant emissions Record: Each occurrence Fuel gas Btu content determination Time, date and results of each inspection and corrective actions taken
Averaging period	Monthly, or as set by the Department

Appendix B: Platform Emergency Flare Monitoring

Platform Emergency Flares

Monitoring approach:	*Periodic Monitoring*	*Compliance Assurance Monitoring [CAM]*
I. Indicator	***H_2S feed rate***	***Operate flare with a flame or spark present at all times when a process gas stream may be sent to it.***
A. Measurement approach	Inlet feed volume shall be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculations or estimated utilizing material balances, computer simulations, special testing, etc. Inlet feed analyzed annually for its H_2S content. Frequency may be modified upon receipt of Departmental approval.	The flare tip shall be equipped either with a continuous sparking flame igniter that is monitored by an amp meter or an equivalent device or visual observation *OR* with a continuously burning pilot light that is monitored with either a thermocouple or an equivalent device or by visual observation.
II. Indicator range	**H_2S feed rate <= 14,000 Lbs/Hr** A deviation is defined as anytime the average H_2S feed rate is > 14,000 Lbs/Hr. Two deviations within a semi-annual period trigger an immediate running of an air quality modeling study that utilizes the maximum inlet mass and flow rates that occurred during this period. The maximum feed rate may be modified upon receipt of Departmental approval.	**Presence of a flame or spark at flare tip** A deviation is defined as when there was no spark or flame present at the flare tip when a process gas stream could be vented to it. A deviation triggers an immediate inspection and corrective actions that meet the requirements of 40 CFR §64.7(d) and reporting within 48 hours or two workdays.
A QIP threshold	Not applicable	If the accumulated hours of deviation events occurring exceeds 5% of the flare's operating time during any semi-annual reporting period, a Quality Improvement Plan shall be developed and implemented.
III. Performance criteria		
A. Data representiveness	Each volume monitor shall be located upstream of the flare and shall consist of a single device that monitors all streams or multiple devices that monitor individual or multiple streams. The sample point for obtaining the H_2S content shall be located at or upstream of each volume monitor.	Each flame igniter or 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.

B. Verification of operational status	Not applicable	Not applicable
C. QA/QC practices & criteria	Each volume monitor shall be maintained and calibrated in accordance with the manufacturer's specifications.	Each flame igniter or 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. Flame igniter arc length shall not exceed 10% of arc interval and shall have an arcing frequency of no greater than once every 3 seconds.
D. Monitoring frequency	Inlet volume shall be measured continuously. Inlet feed H_2S content sample obtained and analyzed annually, unless otherwise approved by the Department.	Pilot flame shall be monitored either continuously with a thermocouple or daily with visual inspections if operating staff is on site. Flame igniter - arcing frequency shall be monitored either continuously with an amp meter or daily with visual inspections if operating staff is on site.
Data collection procedure	Calculate &/or record an inlet volume that is representative of the average daily volume entering the flare. Record daily hours of operation. Record each H_2S concentration analysis. Calculate & record H_2S feed. Record time, date and results of each calibration. Record time, date and results of each inspection and corrective actions taken. Submit air quality modeling results to the Department within 90 days of the end of the semi-annual period.	Record time, date, and duration of each incident of when no spark or flame was present at the flare tip when a process gas stream could have been sent to it. Record time, date, and results of each visual observation. Record time, date, and results of each calibration. Record time, date and results of each inspection and corrective actions taken.
Averaging period	Monthly	Instantaneous

Opacity for Emergency Platform Flares

Monitoring approach:	*Periodic Monitoring*
I. Indicator	**Opacity for Emergency Platform Flares**
A. Measurement approach	Provided the flares are being utilized to burn a gas stream other than the pilot light fuel gas stream, and the platform is manned by operating personnel, a daily visual emissions observation shall be undertaken. Duration of each observation shall be >= 15 minutes AND <= 60 minutes Each observation shall be conducted in accordance with either: Test Method 9 of 40 CFR §60 Or Test Method 22 of 40 CFR §60
II. Indicator range	**2nd 6-min. opacity average within a 60-minute period <= 20%** **Each 6-min. opacity average <= 40%** **Or** **<= 12 minutes of visible emissions during observation** An exceedance is defined as anytime the observed 6-minute average opacity exceeds 20% for the 2nd time within a 60-minute period when utilizing Method 9. An exceedance is defined as anytime the observed 6-minute average opacity exceeds 40% for the 1st time when utilizing Method 9. A deviation is defined as anytime the accumulated time in which visible emissions were observed exceeds 12 minutes per observation when utilizing Method 22. A deviation or exceedance triggers continued visible emissions observations at a frequency suitable to defining the emission deviation or exceedance event. One observation shall be undertaken to establish the end of the visible emission deviation event. A deviation or exceedance triggers an inspection, corrective action, and immediate reporting within 48 hours or two workdays.
III. Performance criteria	
A. Monitoring frequency	Daily, or as set by the Department
Data collection procedure	Record: Daily, or as set by the Department: Each 15 second observation reading Record: Each occurrence: Time, date and results of corrective actions taken
Averaging period	Six minutes