Alabama Department of Environmental Management

MAJOR SOURCE OPERATING PERMIT

PERMITTEE:	FREEBIRD GAS STORAGE, LLC
FACILITY NAME:	EAST DETROIT STORAGE FACILITY
FACILITY/PERMIT NO.:	408-0009
LOCATION:	SULLIGENT, LAMAR COUNTY, ALABAMA

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:	Draft
Effective Date:	Draft
Expiration Date:	January 30, 2030

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General Permit Provisos

Federally Enforceable Provisos	Regulations
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 ADEM Admin. Code r. 335-3-16-.13(1)(a)5.	ADEM Admin. Code r. 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. 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.	ADEM Admin. Code r. 335-3-16-.12(2)
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, subdivisions, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.	ADEM Admin. Code r. 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.	ADEM Admin. Code r. 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.	ADEM Admin. Code r. 335-3-16-.05(g)
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.	ADEM Admin. Code r. 335-3-16-.05(h)

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6. Property Rights	
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.	ADEM Admin. Code r. 335-3-16-.05(i)
7. Submission of Information	
The permittee must submit to the Air Division, within 30 days or for such other reasonable time as the Air Division may set, any information that the Air Division 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 Air Division copies of records required to be kept by this permit.	ADEM Admin. Code r. 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.	ADEM Admin. Code r. 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.	ADEM Admin. Code r. 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 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;	ADEM Admin. Code r. 335-3-16-.07(b)

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(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.	ADEM Admin. Code r. 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. Compliance Certification	
The permittee shall submit a complete and accurate compliance certification by **April 1** of each year for each annual reporting period of this permit (February 1 – January 31).	ADEM Admin. Code r. 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 ADEM Admin. Code r. 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements);	
(4) Whether compliance has been continuous or intermittent;	
(5) Such other facts as the Air Division 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:	
EPA Region 4 via email at EPA_R4_CAA_Reports@epa.gov or through the EPA's Compliance and Emissions Data Reporting Interface (CEDRI)	

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13. Reopening for Cause	
Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit:	ADEM Admin. Code r. 335-3-16-.13(5)
(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.	
(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 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 Air Division at least (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:	ADEM Admin. Code r. 335-3-1-.07(1),(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;	

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(3) The nature and quality 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 sources 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, 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 will 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.	ADEM Admin. Code r. 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. (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:	ADEM Admin. Code r. 335-3-4-.02

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(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; (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. 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 Air Division prior to utilization.	
19. Additions and Revisions	
Any modifications to this source shall comply with the modification procedures in ADEM Admin. Code r. 335-3-16-.13 or 335-3-16-.14.	ADEM Admin. Code r. 335-3-16-.13 and 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.	ADEM Admin. Code r. 335-3-16-.05(c)2.

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21. Reporting Requirements	
(a) Reports to the Air Division 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 ADEM Admin. Code r. 335-3-16-.04(9).	ADEM Admin. Code r. 335-3-16-.05(c)3.
(b) Deviations from permit requirements shall be reported within 48 hours or 2 working days 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.	ADEM Admin. Code r. 335-3-1-.05(3) and 335-3-1-.04(1)
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:	ADEM Admin. Code r. 335-3-1-.04
(a) 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.	
(b) 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).	
(c) 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.	
(d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.	
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.	ADEM Admin. Code r. 335-3-1-.04

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Unless otherwise specified in this permit or applicable regulation, 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	
(a) The permittee shall submit the annual Operating Permit Fees required by ADEM Admin. Code r. 335-1-7-.04 according to the schedule in ADEM Admin. Code r. 335-1-7-.05	ADEM Admin. Code r. 335-1-7-.05
(b) The permittee shall submit its estimates of actual emissions for the previous calendar year according to the schedule in ADEM Admin. Code r. 335-1-7-.05.	ADEM Admin. Code r. 335-1-7-.05
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.	ADEM Admin. Code r. 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 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.	ADEM Admin. Code r. 335-3-16-.05(a)
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:	40 CFR Part 68

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(1) A compliance schedule for meeting the requirements of 40 CFR Part 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 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 make the permit readily available for inspection by any or all persons who may request to see it.	ADEM Admin. Code r. 335-3-16-.02(2)
28. Circumvention	
No person shall cause or permit the installation or use of any device or any means which, without resulting in the 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.	ADEM Admin. Code r. 335-3-1-.10
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.	ADEM Admin. Code r. 335-3-4-.01(1)
30. Fuel-Burning Equipment	
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 ADEM Admin. Code r. 335-3-4-.03.	ADEM Admin. Code r. 335-3-4-.03
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 ADEM Admin. Code r. 335-3-5-.01.	ADEM Admin. Code r. 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 ADEM Admin. Code r. 335-3-4-.04.	ADEM Admin. Code r. 335-3-4-.04

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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.	ADEM Admin. Code r. 335-3-1-.05
33. Open Burning	
Precautions should be taken to ensure that no person shall ignite, cause to ignite, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.	ADEM Admin. Code r. 335-3-3-.01
34. Permit Shield	
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 compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in this operating permit.	ADEM Admin. Code r. 335-3-16-.10

Emission Unit Nos. 001, 002, and 003 (Engine Nos. 489, 490, and 491)

Summary Page

Description: Three (3) 1,340 hp Caterpillar G3516, 4-stroke, Lean-burn Natural Gas-fired Reciprocating Internal Combustion Engines

Permitted Operating Schedule: $\frac{24 \text{ Hours}}{\text{Day}} \text{ X } \frac{365 \text{ Days}}{\text{Year}} = \frac{8760 \text{ Hours}}{\text{Year}}$

Emission Limitations:

Emission Point No.	Description	Pollutant	Emission Limit	Regulation
001	1,340 hp Caterpillar G3516, 4-stroke, Lean-burn Natural Gas-fired Reciprocating Internal Combustion Engine (Engine No. 489)	NO_x	N/A	N/A
		CO	N/A	N/A
		VOC	N/A	N/A
		SO_2	N/A	N/A
		PM	N/A	N/A
		HAP	N/A	N/A
002	1,340 hp Caterpillar G3516, 4-stroke, Lean-burn Natural Gas-fired Reciprocating Internal Combustion Engine (Engine No. 490)	NOx	N/A	N/A
		CO	N/A	N/A
		VOC	N/A	N/A
		SO_2	N/A	N/A
		PM	N/A	N/A
		HAP	N/A	N/A
003	1,340 hp Caterpillar G3516, 4-stroke, Lean-burn Natural Gas-fired Reciprocating Internal Combustion Engine (Engine No. 491)	NOx	N/A	N/A
		CO	N/A	N/A
		VOC	N/A	N/A
		SO_2	N/A	N/A
		PM	N/A	N/A
		HAP	N/A	N/A

Emission Unit Nos. 001, 002, and 003 (Engine Nos. 489, 490, and 491)

Unit Specific Provisos

Federally Enforceable Provisos	Regulations
1. Applicability	
(a) These units are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "Major Source Operating Permits."	ADEM Admin. Code r. 335-3-16-.03
(b) These units are affected sources under 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), and meet the criteria for stationary RICE subject to limited requirements as specified in 40 CFR §63.6590(b)(3).	ADEM Admin. Code r. 335-3-11-.06(103) and 40 CFR Part 63, Subpart ZZZZ
2. Emission Standards	
The permittee shall not discharge more than one six-minute average opacity greater than 20% during any 60-minute period from this unit. At no time shall the permittee discharge a six-minute average opacity of particulate emissions greater than 40% from these units.	ADEM Admin. Code r. 335-3-4-.01(1)
3. Compliance and Performance Test Methods and Procedures	
If testing is required, opacity shall be determined by 40 CFR Part 60, Appendix A, Reference Method 9.	40 CFR Part 60
4. Emission Monitoring	
The permittee shall certify semiannually that only natural gas was fired all three units.	ADEM Admin. Code r. 335-3-16-.05(c)
5. Recordkeeping and Reporting Requirements	
The permittee shall submit a Semiannual Monitoring Report (SMR), as required by General Permit Proviso No. 21(a), no later than 60 days after the end of each semiannual reporting period (**January 1 – June 30** and **July 1 – December 31**). The report shall include a certification that only natural gas was fired in these units.	ADEM Admin. Code r. 335-3-16-.05(c)

Emission Unit Nos. 004, 005, and 006 (Engine Nos. 492, 493, and 494)

Summary Page

Description: Three (3) 2,370 hp Caterpillar G3608, 4-stroke, Lean-burn Natural Gas-fired Reciprocating Internal Combustion Engines with MIRATECH Oxidation Catalyst

Permitted Operating Schedule: $\frac{24 \text{ Hours}}{\text{Day}} \text{ X } \frac{365 \text{ Days}}{\text{Year}} = \frac{8760 \text{ Hours}}{\text{Year}}$

Emission Limitations:

Emission Point No.	Description	Pollutant	Emission Limit	Regulation
004	2,370 hp Caterpillar G3608, 4-stroke, Lean-burn Natural Gas-fired Reciprocating Internal Combustion Engine with MIRATECH Oxidation Catalyst (Engine No. 492)	NO_x	N/A	N/A
		CO (Surrogate for HAP)	93% Reduction	ADEM Admin. Code r. 335-3-11-.06(103) and 40 CFR §63.6600
		VOC	N/A	N/A
		SO_2	N/A	N/A
		PM	N/A	N/A
005	2,370 hp Caterpillar G3608, 4-stroke, Lean-burn Natural Gas-fired Reciprocating Internal Combustion Engine with MIRATECH Oxidation Catalyst (Engine No. 493)	NO_x	N/A	N/A
		CO (Surrogate for HAP)	93% Reduction	ADEM Admin. Code r. 335-3-11-.06(103) and 40 CFR §63.6600
		VOC	N/A	N/A
		SO_2	N/A	N/A
		PM	N/A	N/A
006	2,370 hp Caterpillar G3608, 4-stroke, Lean-burn Natural Gas-fired Reciprocating Internal Combustion Engine with MIRATECH Oxidation Catalyst (Engine No. 494)	NO_x	N/A	N/A
		CO (Surrogate for HAP)	93% Reduction	ADEM Admin. Code r. 335-3-11-.06(103) and 40 CFR §63.6600
		VOC	N/A	N/A
		SO_2	N/A	N/A
		PM	N/A	N/A

Emission Unit Nos. 004, 005, and 006 (Engine Nos. 492, 493, and 494)
Unit Specific Provisos

Federally Enforceable Provisos	Regulations
1. Applicability	
(a) These units are subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "Major Source Operating Permits."	ADEM Admin. Code r. 335-3-16-.03
(b) These units are subject to the applicable provisions of 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, and 40 CFR 63, Subpart A as specified in Table 8 of Subpart ZZZZ.	ADEM Admin. Code r. 335-3-11-.06(103) and 40 CFR Part 63, Subpart ZZZZ
2. Emission Standards	
(a) *Emission Limitation*. In accordance with 40 CFR §63.6600 and Table 2a to Subpart ZZZZ, the permittee shall reduce carbon monoxide (CO) emissions from each unit by 93% or more.	40 CFR §63.6600(b)
(b) *Operating Limitations*. In accordance with 40 CFR §63.6600 and Table 2b to Subpart ZZZZ, the permittee shall: (i) Maintain the catalyst so that the pressure drop across the catalyst does not change by more than two inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the most recent performance test that demonstrated compliance; and (ii) Maintain the temperature of each unit's exhaust so that the catalyst inlet temperature is ≥450°F and ≤1350°F.	40 CFR §63.6600(b)
(c) The permittee shall comply with the applicable emission limitations and operating limitations at all times, except during periods of startup, shutdown, and malfunction.	40 CFR §63.6605(a)
(d) The permittee shall operate and maintain these units, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at all times, including during startup, shutdown, and malfunction.	40 CFR §63.6605(b)
(e) The permittee shall not discharge more than one six-minute average opacity greater than 20% during any 60-minute period from this unit. At no time shall the permittee discharge a six-minute average opacity of particulate emissions greater than 40% from these units.	ADEM Admin. Code r. 335-3-4-.01(1)

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3. <u>Compliance and Performance Test Methods and Procedures</u>	
(a) Performance tests to determine compliance with the carbon monoxide (CO) emission limitation for these units shall be conducted in accordance with the procedures and methods specified in 40 CFR §63.6620 and Table 4 to Subpart ZZZZ.	40 CFR §63.6620
(b) If testing is required, opacity shall be determined by 40 CFR Part 60, Appendix A, Reference Method 9.	40 CFR Part 60
(c) During each run of any performance testing conducted, the permittee shall monitor and record the pressure differential across the catalyst (inches of water column) at the beginning and end of the test run and at least once every 10 minutes during the test run. The average pressure differentials for each test run that indicated compliance shall be averaged to determine the overall average pressure differential for the testing event. Using the overall average pressure differential for the testing event, the pressure differential range that demonstrates compliance shall be established according to the following equation: $P_{LOW} = P_T - 2$ $P_{HIGH} = P_T + 2$ Where: P_{HIGH} = Highest pressure differential across the catalyst that demonstrates compliance P_{LOW} = Lowest pressure differential across the catalyst that demonstrates compliance P_T = Average pressure differential across the catalyst for the testing event	40 CFR §63.6600 and Table 2b to Subpart ZZZZ
4. <u>Emission Monitoring</u>	
(a) The permittee shall conduct performance testing annually (no more than 12 months elapsing between tests) to determine compliance with the applicable emission limitation and reestablish the operating limitation for the pressure drop across the catalyst. If the results of any performance test indicate an engine is not in compliance with the applicable emission limitation **<u>or</u>** the permittee deviates from an operating limitation, the permittee shall conduct semiannual (no more than 6 months elapsing between tests) performance tests for that engine until the permittee has demonstrated compliance for two consecutive performance tests. For an engine that is taken out of service 30 days or more prior to the date the next performance test is due, the permittee shall conduct the performance test within 60 days of restarting the engine.	40 CFR §63.6615 and Table 3 to Subpart ZZZZ

Federally Enforceable Provisos	Regulations
(b) The permittee shall conduct a performance test and reestablish the operating limitation for the pressure drop across the catalyst within 90 days of restarting the engine after completing a replacement of the catalyst for an engine. The permittee shall continue to monitor and record all operating parameters in accordance with the previously established compliance ranges until new ranges are established.	40 CFR §63.6640(b)
(c) The permittee shall install, calibrate, properly maintain, and operate pressure gages in the inlet and outlet ducts of each catalytic converter to measure the pressure differential across the catalyst. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system and necessary parts maintained for routine repairs.	40 CFR §63.6640, Table 6 to Subpart ZZZZ and 40 CFR §63.8
(d) For each engine, the permittee shall monitor and record the pressure differential across the catalyst at least once during any calendar month that the engine is operated. The permittee shall conduct the required monitoring at least once every 31 operating days. No monitoring shall be required during any calendar month that an engine is not operated.	40 CFR §63.6640(a) and Table 6 to Subpart ZZZZ
(e) The permittee shall install, calibrate, properly maintain, and operate a thermocouple in the inlet duct of each catalytic converter to measure the inlet temperature of the catalyst. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system and necessary parts maintained for routine repairs.	40 CFR §63.6640, Table 6 to Subpart ZZZZ, and 40 CFR §63.8
(f) The permittee shall install, calibrate, properly maintain, and operate a continuous parameter monitoring system (CPMS) to continuously monitor the catalyst inlet temperature of each engine. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system and necessary parts maintained for routine repairs.	40 CFR §63.6625, Table 5 to Subpart ZZZZ, and 40 CFR §63.8
(g) While each engine is in operation, the permittee shall continuously monitor and record the inlet temperature of the catalyst at least once every 15 minutes (four readings per hour). The permittee shall reduce the data to 4-hour rolling averages for each engine.	40 CFR §63.6640 and Table 6 to Subpart ZZZZ
(h) The permittee shall operate and maintain each engine, including air pollution control and monitoring equipment, according to the provisions in 40 CFR §63.6(e)(1) at all times.	40 CFR §63.6(e)(1)
(i) The permittee shall certify semiannually that only natural gas was fired in these units.	ADEM Admin. Code r. 335-3-16-.05(c)

Federally Enforceable Provisos	Regulations
5. <u>Recordkeeping and Reporting Requirements</u>	
(a) The permittee shall maintain the following records and all applicable records specified in 40 CFR §63.6655. These records include, but may not be limited to: (i) A copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status; (ii) Records of each startup, shutdown, and malfunction in accordance with 40 CFR §63.6(e)(3)(iii) through (v); (iii) All results of performance tests and CPMS performance evaluations; (iv) Records of each period the CPMS is malfunctioning or inoperative (including out-of-control periods); (v) All CPMS calibration checks; (vi) All monitoring data collected for the catalyst inlet temperature, including the date and time of each measurement; (vii) All 4 hour rolling averages calculated from the catalyst inlet temperature monitoring data, including the date and time period represented by the average; (viii) All monitoring data collected for the pressure drop across the catalyst, including the date and time of each measurement and the parameter range that was applicable at the time the monitoring was performed; and (ix) The date(s), time, nature, and results of any corrective action taken when an exceedance of an operating limitation occurred.	ADEM Admin. Code r. 335-3-16-.05(c) and 40 CFR §63.6655
(b) The permittee shall keep each required record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee shall keep each record readily accessible in hard copy or electronic form on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee may keep the records off site for the remaining 3 years.	ADEM Admin. Code r. 335-3-16-.05(c) and 40 CFR §63.6660

Federally Enforceable Provisos	Regulations
(c) The permittee shall develop and maintain a written startup, shutdown, and malfunction plan (SSMP) that describes, in detail, procedures for operating and maintaining the engines during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning processes, air pollution control, and monitoring equipment used to comply with the relevant standard.	40 CFR §63.6(e)(3)
(d) The permittee shall submit the following notifications and all applicable notifications specified in 40 CFR §63.6645. These notifications include, but may not be limited to: (i) The permittee shall submit a written notification of the intent to replace a catalyst to the Air Division at least 30 days prior to taking any action. The permittee shall submit a written notification to the Air Division that the replacement has been completed within 15 days of completing the action. (ii) The permittee shall submit a written notification of the intent to conduct a performance test to the Air Division at least 60 days prior to conducting a performance test. The notification shall include a copy of the site-specific test plan required by 40 CFR §63.7(c)(2). (iii) The permittee shall submit a written notification of the intent to conduct a performance evaluation of the continuous monitoring system to the Air Division at least 60 days prior to conducting a performance evaluation. The notification shall include a copy of the site-specific performance evaluation test plan required by 40 CFR §63.8(e)(3).	ADEM Admin. Code r. 335-3-16-.05(c) and 40 CFR §63.6645
(e) The permittee shall submit the following reports and all applicable reports specified in 40 CFR §63.6650 and Table 7 to Subpart ZZZZ. These reports include, but may not be limited to: (i) The permittee shall submit a report of the results of all performance tests conducted to the Air Division within 60 days of completing the test. The report shall also contain the pressure differential data collected during testing and the calculation of the new operating limitations for the pressure drop across the catalyst. (ii) A Semiannual Monitoring Report (SMR), as required by General Permit Proviso No. 21(a),that includes a certification that only natural gas was fired in these units. The report shall be submitted no later than 60 days after the end of each semiannual reporting period (**January 1** – **June 30** and **July 1** – **December 31**).	ADEM Admin. Code r. 335-3-16-.05(c) and 40 CFR §63.6650 and Table 7 to Subpart ZZZZ

Federally Enforceable Provisos	Regulations
(iii) A Semiannual Compliance Report (SCR) which contains the information in 40 CFR §63.6650(c) through (f), as applicable. The report shall be submitted no later than 60 days after the end of each semiannual reporting period (**January 1** – **June 30** and **July 1** – **December 31**). (iv) An immediate startup, shutdown, and malfunction report if a startup, shutdown, or malfunction occurs during a reporting period that is not consistent with the permittee's SSMP. A. Initially, a report shall be submitted by email or telephone within 2 working days after starting actions inconsistent with the SSMP and shall identify the nature of the event and the actions taken. B. Subsequently, a report shall be submitted by letter within 7 working days after the end of the event (unless alternative arrangements have been approved by the Air Division) and shall contain the information specified in 40 CFR §63.10(d)(5)(ii).	

Emission Unit No. 009 (Glycol Dehydrator)

Summary Page

Description: 1.0 MMBtu/hr ETI Natural Gas-fired Glycol Dehydrator/Heater w/Condenser and Thermal Oxidizer

Permitted Operating Schedule: $\frac{24 \text{ Hours}}{\text{Day}} \text{ X } \frac{365 \text{ Days}}{\text{Year}} = \frac{8760 \text{ Hours}}{\text{Year}}$

Emission Limitations:

Emission Point No.	Description	Pollutant	Emission Limit	Regulation
009	1.0 MMBtu/hr ETI Natural Gas-fired Glycol Dehydrator/Heater w/Condenser and Thermal Oxidizer	NO_x	N/A	N/A
		CO	N/A	N/A
		VOC	N/A	N/A
		SO_2	N/A	N/A
		PM	N/A	N/A
		BTEX	Equation 1	40 CFR §63.1275(b)(1)(iii)

Emission Unit No. 009 (Glycol Dehydrator)

Unit Specific Provisos

Federally Enforceable Provisos	Regulations
1. Applicability	
(a) This unit is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "Major Source Operating Permits."	ADEM Admin. Code r. 335-3-16-.03
(b) This unit is subject to the applicable requirements of 40 CFR Part 63, Subpart HHH, National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities, and meets the definition of an existing small glycol dehydration unit as defined by 40 CFR §63.1271.	ADEM Admin. Code r. 335-3-11-.06(59) and 40 CFR Part 63, Subpart HHH
2. Emission Standards	
(a) The permittee shall not cause or allow BTEX (benzene, toluene, ethyl benzene, and xylene) emissions from this unit in excess of the allowable emissions rate calculated using Equation 1 as specified in 40 CFR §63.1275(b)(1)(iii) for existing small glycol dehydration units: $EL_{BTEX} = 3.10 \times 10^{-4} \times \text{Throughput} \times C_{LBTEX} \times 365 \frac{\text{days}}{\text{yr}} \times \frac{1\text{Mg}}{1 \times 10^{6}\text{ gr}}$ Where: EL_{BTEX} = Unit specific BTEX emission limit (megagrams/yr) 3.10×10^{-4} = BTEX emission limit (gr BTEX/scm-ppmv) Throughput= annual average daily natural gas throughput (scm/day) C_{LBTEX}= annual average BTEX concentration of the natural gas at the inlet to the glycol dehydration unit (ppmv)	40 CFR §63.1275(b)(1)(iii)
(b) The thermal oxidizer associated with this unit meets the definition of a flare as defined by 40 CFR §63.1271.	40 CFR §63.1271
(c) This unit shall be operated with a thermal oxidizer at all times.	40 CFR §63.1281(f)(2)(i)
(d) The thermal oxidizer shall be designed and operated in accordance with the requirements of 40 CFR §63.11(b) as specified in 40 CFR §63.1281(f)(1)(iii).	40 CFR §63.1281(f)(1)(iii)
(e) The permittee shall operate and maintain this unit, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at all times, including during startup, shutdown, and malfunction.	40 CFR §63.1274(h)

Federally Enforceable Provisos	Regulations
(f) The permittee shall not cause or allow visible emissions with a six-minute average opacity greater than 20% to be emitted more than once during any 60-minute period. The permittee shall not cause or allow visible emissions with a six-minute average opacity greater than 40% to be emitted at any time.	ADEM Admin. Code r. 335-3-4-.01(1)
3. <u>Compliance and Performance Test Methods and Procedures</u>	
(a) The permittee shall determine the actual flowrate of natural gas to the glycol dehydration unit by either:	40 CFR §63.1282(a)(1)
(i) Installing and operating a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2% or better. The permittee shall convert the annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas; or	
(ii) The permittee shall document the actual annual average natural gas flowrate to the glycol dehydration unit.	
(b) The permittee shall determine the actual average benzene or BTEX emissions from this unit by either:	40 CFR §63.1282(a)(2)
(i) Using the model GRI-GLYCalc Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of this unit and may be determined using procedures in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions"; or	
(i) The average mass rate of benzene or BTEX emissions for this unit shall be determined by 40 CFR Part 60, Appendix A, Reference Method 18, or ASTM D6420-99 in accordance with a protocol/method approved in advance by the Air Division.	
(c) An owner or operator shall design and operate each flare, as defined in 40 CFR §63.1271, in accordance with the requirements specified in 40 CFR §63.11(b) and the compliance determination shall be conducted using Method 22 of 40 CFR part 60, appendix A, to determine visible emissions.	40 CFR §63.1282(d)
(d) The permittee shall demonstrate that the thermal oxidizer achieves the performance requirements of 40 CFR §63.1281(f)(1) by conducting a performance test as specified in 40 CFR §63.1282(d)(2), along with a protocol/method approved in advance by the Air Division.	40 CFR §63.1282(d)
(e) Subsequent performance testing shall be conducted on the thermal oxidizer no more than 60 months after the previous test.	40 CFR §63.1282(d)(3)(vi)(B)

Federally Enforceable Provisos	Regulations
(f) If testing is required for this unit, opacity shall be determined by 40 CFR Part 60, Appendix A, Reference Method 9.	40 CFR Part 60, Appendix A
4. <u>Emission Monitoring</u>	
(a) Periodic performance tests shall be conducted on the thermal oxidizer no later than 60 months following the previous to ensure that the thermal oxidizer achieves the performance requirements of 40 CFR §63.1281(f)(1).	40 CFR §63.1282(d)(3)(vi)
(b) Compliance for the thermal oxidizer shall be demonstrated by utilizing a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame in accordance with 40 CFR §63.11(b)(5).	40 CFR §63.11(b)(5)
(c) If at any time the condenser meets the definition of a control device as defined by 40 CFR §63.1271, the permittee shall notify the Air Division within 30 days of the change in status.	40 CFR §63.1271
(d) If the condenser meets the definition of a control device as defined by 40 CFR §63.1271, the permitee shall comply with the following requirements:	
(i) Within 180 days from the change in the condenser's status, the permittee shall establish a condenser performance curve showing the relationship between condenser outlet temperature and condenser control efficiency. The curve shall be established as follows:	40 CFR §63.1283(d)(5)(ii)
A. If the permittee conducts a performance test in accordance with the requirements of 40 CFR §63.1282(d)(3) to demonstrate that the condenser achieves the applicable performance requirements of 40 CFR §63.1281(f)(1), then the condenser performance curve shall be based on values measured during the performance test and supplemented as necessary by control device design analysis, or control device manufacturer's recommendations, or a combination of both.	40 CFR §63.1283(d)(5)(ii)(A)
B. If the permittee uses a control device design analysis in accordance with the requirements of 40 CFR §63.1282(d)(4)(i) to demonstrate that the condenser achieves the applicable performance requirements of 40 CFR §63.1281(f)(1), then the condenser performance curve shall be based on the condenser design analysis and may be supplemented by the control device manufacturer's recommendation.	40 CFR §63.1283(d)(5)(ii)(B)

Federally Enforceable Provisos	Regulations
C. As an alternative to 40 CFR §63.1283(d)(5)(ii)(B), the permittee may elect to use the procedures documented in the GRI report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" as inputs for the model GRI-GLYCalc, Version 3.0 or higher, to generate a condenser performance curve.	40 CFR §63.1283(d)(5)(ii)(C)
(ii) Compliance shall be demonstrated using the requirements specified in 40 CFR §63.1282(e)(1) through (3). As an alternative, the permittee may demonstrate compliance as specified in 40 CFR §63.1282(f). The permittee may switch between compliance with 40 CFR §63.1282(e) and compliance with 40 CFR §63.1282(f) only after at least 1 year of operation in compliance with the selected approach. Notification of such change in the compliance method shall be reported in the next Periodic Report following the change, as required in 40 CFR §63.1285(e).	40 CFR §63.1282(e)
(e) For each bypass device, except as provided for in 40 CFR §63.1281(c)(3)(ii), the permittee shall:	40 CFR §63.1283(c)
(i) At the inlet to the bypass device that could divert the stream away from the thermal oxidizer to the atmosphere, set the flow indicator to take a reading at least once every 15 minutes; or	
(ii) If the bypass device valve installed at the inlet to the bypass is secured in the non-diverting position using a car-seal or a lock-and-key type configuration, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass device.	
(f) In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable.	40 CFR §63.1283(c)
(i) The first attempt at repair shall be made no later than five (5) calendar days after the leak is detected. Repairs shall be completed no later than fifteen (15) calendar days after the leak is detected.	
(ii) Delay of repairs of a closed-vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown as defined in 40 CFR §63.1271, or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repairs of such equipment shall be completed by the end of the next shutdown.	

Federally Enforceable Provisos	Regulations
(g) The permittee shall install and operate a continuous parameter monitoring system (CPMS) in accordance with the requirements of 40 CFR §63.1283(d)(3) through (7). The CPMS shall be designed and operated so that a determination can be made on whether the control device is achieving the applicable performance requirements.	40 CFR §63.1283(d)
(h) The CPMS shall measure data values at least every hour and record either: (i) Each measured data value; or (ii) Each block average value for each 1-hour period or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.	40 CFR §63.1283(d)
(i) The permittee shall prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in 40 CFR §63.1283(d) and 40 CFR §63.8(d). Each CPMS must be installed, calibrated, operated, and maintained in accordance with the procedures in the approved site-specific monitoring plan. Using the process described in 40 CFR §63.8(f)(4), the permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in 40 CFR §63.1283(d)(1)(ii)(A) through (E).	40 CFR §63.1283(d)
(j) The permittee must conduct the CPMS equipment performance checks, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least every 12-months.	40 CFR §63.1283(d)
(k) The permittee must conduct a performance evaluation of the CPMS in accordance with the site-specific monitoring plan.	40 CFR §63.1283(d)
(l) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits and required zero and span adjustments), the CPMS must be operated at all times the glycol dehydrator is operating.	40 CFR §63.1282(e)(4)
(m) Data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating levels. All the data collected during all other required data collection periods must be used in assessing the operation of the control device and associated control system.	40 CFR §63.1282(e)(5)

Federally Enforceable Provisos	Regulations
(n) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required quality monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements.	40 CFR §63.1282(e)(6)
(o) An excursion for a given control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in 40 CFR §63.1283(d)(6)(i) through (v) being met. When multiple operating parameters are monitored for the same control device and during the same operating day, and more than one of these operating parameters meets an excursion criterion specified in 40 CFR §63.1283(d)(6)(i) through (v), then a single excursion is determined to have occurred for the control device for that operating day.	40 CFR §63.1283(d)(6)
(p) The permittee shall certify semiannually:	ADEM Admin. Code r. 335-3-16-.05(c)
(i) That only natural gas was fired in the glycol dehydrator/heater; and	
(ii) That only natural gas was fired in the thermal oxidizer with the exception of the waste gases generated by the glycol dehydrator/heater unit operations that are combusted and destroyed in the thermal oxidizer.	
5. <u>Recordkeeping and Reporting Requirements</u>	
(a) The permittee shall maintain the following records and all applicable records specified in 40 CFR §63.1284. These records include, but may not be limited to:	ADEM Admin. Code r. 335-3-16-.05(c) and 40 CFR §63.1284
(i) All information, including reports and notifications, required by 40 CFR Part 63, Subpart HHH. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period. The most recent 12 months of records shall be retained on site or shall be accessible from a central location by hardcopy, computer or other means. The following 4 years of records may be retained offsite. All applicable records shall be maintained in such a manner that they can be readily accessed.	
(ii) All records specified in 40 CFR §63.10(b)(2)	
(iii) Records specified in 40 CFR §63.10(c), for each monitoring system operated by the permittee in accordance with 40 CFR §63.1283(d).	

Federally Enforceable Provisos	Regulations
(iv) Records of the time and duration of all such periods during process or control device operation when monitors are not operating or failed to collect required data, including: A. Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments. B. Periods of non-operation resulting in cessation of the emissions to which the monitoring applies; and C. Excursions due to invalid data as defined in 40 CFR §63.1283(d)(6)(iii). (v) Continuous records of the equipment operating parameters specified to be monitored under 40 CFR §63.1283(d) or specified by the Administrator in accordance with 40 CFR §63.1283(d)(3)(iii). (vi) Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 CFR §63.1283(d)(4), except as specified in 40 CFR §63.1284(b)(4)(ii)(A) through (C). (vii) Hourly records of the times and durations of all periods when the vent stream is diverted from the control device or the device is not operating. (viii) Records identifying all parts of the closed-vent system that are designated as unsafe or difficult to inspect, and an explanation of why the equipment is unsafe or difficult to inspect and the plan for inspecting the equipment. (ix) For each inspection conducted in accordance with 40 CFR §63.1283(c), during which a leak or defect is detected, a record of the information specified in 40 CFR §63.1284(b)(7)(i) through (viii). (x) For each inspection conducted in accordance with 40 CFR §63.1283(c) during which no leaks or defects are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected. (xi) The permittee shall maintain records of the occurrence and duration of each malfunction of operation (i.e. process equipment) or the air pollution control equipment and monitoring equipment. The permittee shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.1274(h), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.	

Federally Enforceable Provisos	Regulations
(b) The permittee shall submit the following notifications and all applicable notifications specified in 40 CFR §63.1285. These notifications include, but may not be limited to:	ADEM Admin. Code r. 335-3-16-.05(c) and 40 CFR §63.1285
(i) The permittee shall submit a written notification of the intent to conduct a performance test to the Air Division at least 60 days prior to conducting a performance test. The notification shall include a copy of the site-specific test plan required by 40 CFR §63.7(c)(2).	
(ii) The permittee shall submit a written notification of the intent to conduct a performance evaluation of the continuous monitoring system to the Air Division at least 60 days prior to conducting a performance evaluation. The notification shall include a copy of the site-specific performance evaluation test plan required by 40 CFR §63.8(e)(2).	
(iii) The permittee shall submit a Notification of Compliance Status Report as required under 40 CFR §63.9(h) by April 12, 2016. In addition, the Notification of Compliance Status Report shall contain the information specified in 40 CFR §63.1285(d)(1) through (12).	
(c) The permittee shall submit a Periodic Report containing the information specified in 40 CFR §63.1285(e)(2)(i) through (xiii) as applicable. The report shall be submitted no later than 60 days after the end of each semiannual reporting period (**January 1** – **June 30** and **July 1** – **December 31**).	ADEM Admin. Code r. 335-3-16-.05(c) and 40 CFR §63.1285
(i) If there is a malfunction during the reporting period, the Periodic Report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during the malfunction to minimize emissions in accordance with 40 CFR §63.1274(h).	
(d) The permittee shall submit a Semiannual Monitoring Report (SMR), as required by General Permit Proviso No. 21(a), that includes a certification that:	ADEM Admin. Code r. 335-3-16-.05(c)
(i) Only natural gas was fired in the glycol dehydrator/heater;	
(ii) And that only natural gas was fired in the thermal oxidizer with the exception of the waste gases generated by the glycol dehydrator/heater unit operations that are combusted and destroyed by the thermal oxidizer; and	
(iii) The report shall be submitted no later than 60 days after the end of each semiannual reporting period (**January 1** – **June 30** and **July 1** – **December 31**).	

Emission Unit No. 010 (Emergency Generator Engine No. 2)

Summary Page

Description: 468 hp Generac 13.3GTA MG300, 4-stroke, Rich-burn Natural Gas-fired Reciprocating Internal Combustion Engine with 3-Way Catalytic Converter (NSCR) Operating as an Emergency Generator

Permitted Operating Schedule: $\frac{24 \text{ Hours}}{\text{Day}} \times \frac{365 \text{ Days}}{\text{Year}} = \frac{8760 \text{ Hours}}{\text{Year}}$

Emission Limitations:

Emission Point No.	Description	Pollutant	Emission Limit	Regulation
010	468 hp Generac 13.3GTA MG300, 4-stroke, Rich-burn Natural Gas-fired Reciprocating Internal Combustion Engine with 3-Way Catalytic Converter (NSCR) Operating as an Emergency Generator	NO_x	2.0 g/hp-hr or 160 ppmvd at 15% O_2	ADEM Admin. Code r. 335-3-10-.02(88) and 40 CFR §60.4233(e)
		CO	4.0 g/hp-hr or 540 ppmvd at 15% O_2	ADEM Admin. Code r. 335-3-10-.02(88) and 40 CFR §60.4233(e)
		VOC	1.0 g/hp-hr or 86 ppmvd at 15% O_2	ADEM Admin. Code r. 335-3-10-.02(88) and 40 CFR §60.4233(e)
		SO_2	N/A	N/A
		PM	N/A	N/A
		HAP	N/A	N/A

Emission Unit No. 010 (Emergency Generator Engine No. 2)

Unit Specific Provisos

Federally Enforceable Provisos	Regulations
1. Applicability	
(a) This unit is subject to the applicable requirements of ADEM Admin. Code r. 335-3-16-.03, "Major Source Operating Permits."	ADEM Admin. Code r. 335-3-16-.03
(b) This unit is an affected source under 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.	ADEM Admin. Code r. 335-3-11-.06(103) and 40 CFR Part 63, Subpart ZZZZ
(c) This unit is subject to the applicable provisions of 40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE). The permittee shall only operate this unit as an emergency generator as defined in this standard.	ADEM Admin. Code r. 335-3-10-.02(88) and 40 CFR §60.4230(a)(4)(iv) and §60.4243(d)
2. Emission Standards	
(a) The permittee shall not cause or allow emissions of nitrogen oxides (NOx) from this unit to exceed 2.0 g/hp-hr or 160 ppmvd at 15% O_2.	ADEM Admin. Code r. 335-3-10-.02(88) and 40 CFR §60.4233(e)
(b) The permittee shall not cause or allow emissions of carbon monoxide (CO) from this unit to exceed 4.0 g/hp-hr or 540 ppmvd at 15% O_2.	ADEM Admin. Code r. 335-3-10-.02(88) and 40 CFR §60.4233(e)
(c) The permittee shall not cause or allow emissions of volatile organic compounds (VOC) from this unit to exceed 1.0 g/hp-hr or 86 ppmvd at 15% O_2.	ADEM Admin. Code r. 335-3-10-.02(88) and 40 CFR §60.4233(e)
(d) The permittee shall not discharge more than one six-minute average opacity greater than 20% during any 60-minute period from this unit. At no time shall the permittee discharge a six-minute average opacity of particulate emissions greater than 40% from this unit.	ADEM Admin. Code r. 335-3-4-.01(1)
(e) The permittee shall operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions and shall keep records of conducted maintenance to demonstrate compliance.	40 CFR §60.4243(a)(1)
(f) The permittee shall use an air-to-fuel ratio controller with the operation of 3-way catalyst/non-selective catalytic reduction.	40 CFR §60.4243(g)
3. Compliance and Performance Test Methods and Procedures	
(a) If testing is required, opacity shall be determined by 40 CFR Part 60, Appendix A, Reference Method 9.	ADEM Admin. Code r. 335-3-1-.05

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(b) If testing is required, the nitrogen oxides (NOx) emission rate of this unit shall be determined by EPA Reference Methods 1, 2, 3 and 4 or 19, and EPA Reference Method 7E in Appendix A of 40 CFR Part 60. Alternate test methods may be used provided prior approval by the Air Division is granted.	ADEM Admin. Code r. 335-3-1-.05
(c) If testing is required, the carbon monoxide (CO) emission rate of this unit shall be determined by EPA Reference Methods 1, 2, 3 and 4 or 19, and EPA Reference Method 10 in Appendix A of 40 CFR Part 60. Alternate test methods may be used provided prior approval by the Air Division is granted.	ADEM Admin. Code r. 335-3-1-.05
(d) If testing is required, the volatile organic compounds (VOC) emission rate of this unit shall be determined by EPA Reference Methods 1, 2, 3 and 4 or 19, and EPA Reference Methods 25A and/or 18 in Appendix A of 40 CFR Part 60. Alternate test methods may be used provided prior approval by the Air Division is granted.	ADEM Admin. Code r. 335-3-1-.05
4. <u>Emission Monitoring</u>	
(a) The permittee shall install and operate a non-resettable hour meter on this engine.	40 CFR §60.4237(b)
(b) The permittee shall not operate this engine except as provided in 40 CFR §60.4243(d)(1) through (d)(3), which includes but may not be limited to: (i) Emergency situations; (ii) A total of 100 hours per year or less for the purposes allowed by 40 CFR §60.4243(d)(2)(i)-(iii), which include maintenance checks and readiness testing, emergency demand response, and periods where deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency; and (iii) A total of 50 hours per year or less for the non-emergency situations allowed by 40 CFR §60.4243(d)(3); however, those 50 hours are counted towards the 100 hours per year allowed for maintenance checks and readiness testing, emergency demand response, and voltage or frequency deviations of 5 percent or greater.	40 CFR §60.4243(d)
(c) This unit is limited to the use of natural gas only as a fuel to fire the engine. However, the permittee may operate the engine using propane for a maximum of 100 hours per year and an alternate fuel solely during emergency operations, but must keep records of such use.	ADEM Admin. Code r. 335-3-16-.05(c) and 40 CFR §60.4243(e)
5. <u>Recordkeeping and Reporting Requirements</u>	
(a) The permittee shall keep the following records for this engine in accordance with 40 CFR §60.4245. At a minimum, these records shall include:	ADEM Admin. Code r. 335-3-16-.05(c) and 40 CFR §60.4245

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(i) A copy of all notifications submitted to comply with NSPS, Subpart JJJJ and all documentation supporting any notification; (ii) For each period of operation, the permittee shall record the date and length of operation and the reason the engine was in operation during that time. For periods of operation designated as "emergency operation," the records shall reflect what classified the operation as emergency. The permittee shall subtotal the total number of hours the engine was operated during a calendar year by the reason the engine was in operation; (iii) Documentation from the manufacturer that the engine is certified to meet the applicable emission standards; and (iv) The dates and nature of maintenance performed.	
(b) The permittee shall submit a Semiannual Monitoring Report, as required by general Permit Proviso No. 21(a), no later than 60 days after the end of each semiannual reporting period (**January 1 – June 30** and **July 1 – December 31**). The report shall include a statement addressing whether only natural gas was fired in these units during the reporting period.	ADEM Admin. Code r. 335-3-16-.05(c)