



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR QUALITY PROGRAM

STATE ONLY NATURAL MINOR OPERATING PERMIT

Issue Date: June 24, 2022 Effective Date: June 24, 2022

Expiration Date: June 23, 2027

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated.

State Only Permit No: 30-00183

Natural Minor

Federal Tax Id - Plant Code: 32-0422322-4

Owner Information

Name: EQM GATHERING OPCO LLC

Mailing Address: 2200 ENERGY DR

CANONSBURG, PA 15317-1001

Plant Information

Plant: EQM GATHERING OPCO LLC/JUPITER COMP STA

Location: 30 Greene County 30918 Morgan Township

SIC Code: 1311 Mining - Crude Petroleum And Natural Gas

Responsible Official

Name: JACK MACKIN
Title: VP OF OPERATIONS

Phone: (412) 670 - 0726 Email: jmackin@equitransmidstream.com

Permit Contact Person

Name: MATTHEW KRAUS

Title: ENVIRONMENTAL ENGINEER

Phone: (412) 260 - 1723 Email: mkraus@equitransmidstream.com

[Signature]

MARK R. GOROG, P.E., ENVIRONMENTAL PROGRAM MANAGER, SOUTHWEST REGION



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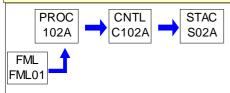




SECTION A. Site Inventory List

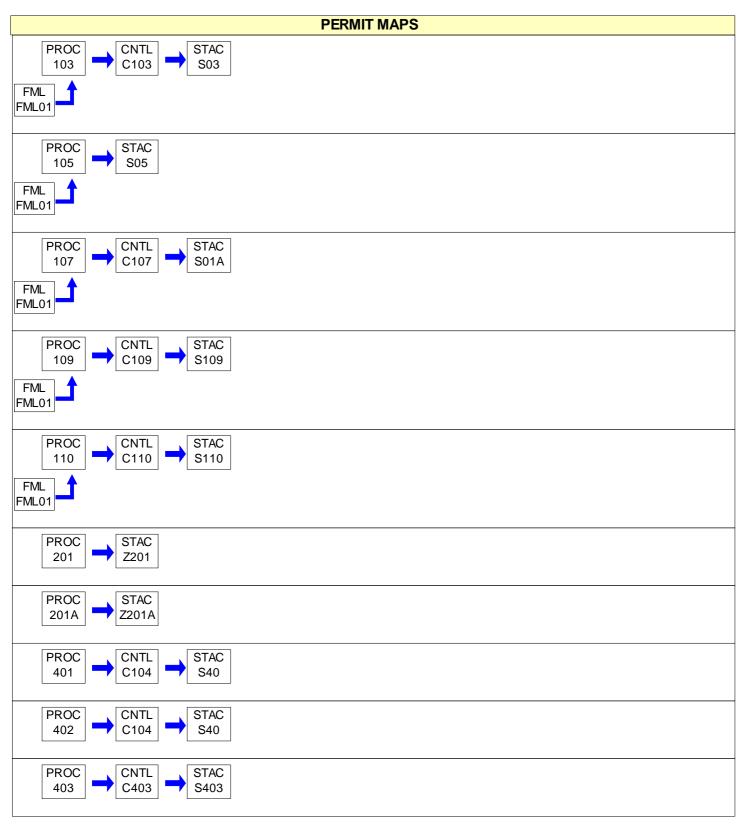
Source II	O Source Name	Capacity/Throughput	Fuel/Material
102A	2370 BHP CAT G3608 COMP ENGINE SN BEN01182		
103	2370 BHP CAT G3608 COMP ENGINE SN BEN00629		
105	EMERGENCY GENERATOR 1 (NG-FIRED, 690-BHP)		
107	2370 BHP CAT G3608 COMP ENGINE 1A, SN BEN00692		
109	4735 BHP CAT G3616LE COMP ENGINE SN BLB00907		
110	4735 BHP CAT G3616LE COMP ENGINE SN BLB00904		
201	HEATERS/REBOILERS		
201A	MISC VOCS, TANKS, LEAKS, BLOWDOWN, PIGGING, ETC		
401	TEG DEHYDRATION UNIT 1		
402	TEG DEHYDRATION UNIT 2		
403	TEG DEHYDRATION UNIT 3		
C102A	COMPRESSOR ENGINE 2A OXIDATION CATALYST		
C103	COMPRESSOR ENGINE 3 OXIDATION CATALYST		
C104	TEG DEHYDRATION UNITS 1 & 2 ENCLOSED FLARE		
C107	COMPRESSOR ENGINE 1A OXIDATION CATALYST		
C109	COMPRESSOR ENGINE 4 OXIDATION CATALYST		
C110	COMPRESSOR ENGINE 5 OXIDATION CATALYST		
C403	TEG DEHYDRATION UNIT 3 ENCLOSED FLARE		
FML01	NATURAL GAS LINE		
S01A	ENGINE 1A STACK		
S02A	COMPRESSOR 2A STACK		
S03	COMPRESSOR 3 STACK		
S05	EMERGENCY GENERATOR 1 STACK		
S109	COMPRESSOR ENGINE 4 STACK		
S110	COMPRESSOR ENGINE 5 STACK		
S40	DEHY 1 & 2 ENCLOSED FLARE STACK		
S403	DEHY 3 ENCLOSED FLARE STACK		
Z201	HEATERS/REBOILERS STACK		
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PERMIT MAPS













#001 [25 Pa. Code § 121.1]

Definitions.

Words and terms that are not otherwise defined in this permit shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and in 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 127.446]

Operating Permit Duration.

- (a) This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit.
- (b) The terms and conditions of the expired permit shall automatically continue pending issuance of a new operating permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit.

#003 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446 & 127.703(b)]

Permit Renewal.

- (a) The permittee shall submit a timely and complete application for renewal of the operating permit to the appropriate Regional Air Program Manager. The application for renewal of the operating permit shall be submitted at least six (6) months and not more than 18 months before the expiration date of this permit.
- (b) The application for permit renewal shall include the current permit number, a description of any permit revisions that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.
- (c) The permittee shall submit with the renewal application a fee for the processing of the application as specified in 25 Pa. Code § 127.703(b). The fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" and submitted with the fee form to the respective regional office.
- (d) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413.
- (e) The application for renewal of the operating permit shall also include submission of supplemental compliance review forms in accordance with the requirements of 25 Pa. Code § 127.412(b) and § 127.412(j).
- (f) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information as necessary to address any requirements that become applicable to the source after the permittee submits a complete application, but prior to the date the Department takes action on the permit application.

#004 [25 Pa. Code § 127.703]

Operating Permit Fees under Subchapter I.

- (a) The permittee shall pay the annual operating permit maintenance fee according to the following fee schedule in either paragraph (1) or (2) in accordance with 25 Pa. Code § 127.703(d) on or before December 31 of each year for the next calendar year.
 - (1) For a synthetic minor facility, a fee equal to:
 - (i) Four thousand dollars (\$4,000) for calendar years 2021—2025.
 - (ii) Five thousand dollars (\$5,000) for calendar years 2026—2030.
 - (iii) Six thousand three hundred dollars (\$6,300) for the calendar years beginning with 2031.



- (2) For a facility that is not a synthetic minor, a fee equal to:
 - (i) Two thousand dollars (\$2,000) for calendar years 2021—2025.
 - (ii) Two thousand five hundred dollars (\$2,500) for calendar years 2026—2030.
 - (iii) Three thousand one hundred dollars (\$3,100) for the calendar years beginning with 2031.
- (b) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

#005 [25 Pa. Code §§ 127.450 (a)(4) and 127.464]

Transfer of Operating Permits.

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- (a) This operating permit may not be transferred to another person, except in cases of transfer-of-ownership that are documented and approved by the Department.
- (b) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership of the source shall be treated as an administrative amendment if the Department determines that no other change in the permit is required and a written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee and a compliance review form has been submitted to, and the permit transfer has been approved by, the Department.
- (c) This operating permit is valid only for those specific sources and the specific source locations described in this permit.

#006 [25 Pa. Code § 127.441 and 35 P.S. § 4008]

Inspection and Entry.

- (a) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Department or authorized representatives of the Department to perform the following:
- (1) Enter at reasonable times upon the permittee's premises where a source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;
 - (2) Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
- (3) Inspect at reasonable times, any facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;
- (4) Sample or monitor, at reasonable times, any substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.
- (b) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act or regulations adopted thereunder including denying the Department access to a source at this facility. Refusal of entry or access may constitute grounds for permit revocation and assessment of criminal and/or civil penalties.
- (c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#007 [25 Pa. Code §§ 127.441 & 127.444]

Compliance Requirements.

(a) The permittee shall comply with the conditions of this operating permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one or more of the following:



- (1) Enforcement action
- (2) Permit termination, revocation and reissuance or modification
- (3) Denial of a permit renewal application
- (b) A person may not cause or permit the operation of a source which is subject to 25 Pa. Code Article III unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued for the source is operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.
- (c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this State-Only permit. Nothing in this sub-condition shall be construed to create an independent affirmative duty upon the permittee to obtain a predetermination from the Department for physical configuration or engineering design detail changes made by the permittee.

#008 [25 Pa. Code § 127.441]

Need to Halt or Reduce Activity Not a Defense.

It shall not be a defense for the permittee in an enforcement action that it was necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

#009 [25 Pa. Code §§ 127.442(a) & 127.461]

Duty to Provide Information.

- (a) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of each source at the facility.
- (b) The permittee shall furnish to the Department, in writing, information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to maintain in accordance with this permit.

#010 [25 Pa. Code § 127.461]

Revising an Operating Permit for Cause.

This operating permit may be terminated, modified, suspended or revoked and reissued if one or more of the following applies:

- (1) The permittee constructs or operates the source subject to the operating permit so that it is in violation of the Air Pollution Control Act, the Clean Air Act, the regulations thereunder, a plan approval, a permit or in a manner that causes air pollution.
- (2) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.
- (3) The permittee has failed to submit a report required by the operating permit or an applicable regulation.
- (4) The EPA determines that the permit is not in compliance with the Clean Air Act or the regulations thereunder.

#011 [25 Pa. Code §§ 127.450, 127.462, 127.465 & 127.703]

Operating Permit Modifications

(a) The permittee is authorized to make administrative amendments, minor operating permit modifications and significant operating permit modifications, under this permit, as outlined below:



- (b) Administrative Amendments. The permittee shall submit the application for administrative operating permit amendments (as defined in 25 Pa. Code § 127.450(a)), according to procedures specified in § 127.450 unless precluded by the Clean Air Act or its regulations.
- (c) Minor Operating Permit Modifications. The permittee shall submit the application for minor operating permit modifications (as defined 25 Pa. Code § 121.1) in accordance with 25 Pa. Code § 127.462.
- (d) Significant Operating Permit Modifications. The permittee shall submit the application for significant operating permit modifications in accordance with 25 Pa. Code § 127.465.
- (e) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

#012 [25 Pa. Code § 127.441]

Severability Clause.

The provisions of this permit are severable, and if any provision of this permit is determined by a court of competent jurisdiction to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

#013 [25 Pa. Code § 127.449]

De Minimis Emission Increases.

- (a) This permit authorizes de minimis emission increases in accordance with 25 Pa. Code § 127.449 so long as the permittee provides the Department with seven (7) days prior written notice before commencing any de minimis emissions increase. The written notice shall:
 - (1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.
- (2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.
- (b) The Department may disapprove or condition de minimis emission increases at any time.
- (c) Except as provided below in (d), the permittee is authorized to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:
- (1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.
- (2) One ton of NOx from a single source during the term of the permit and 5 tons of NOx at the facility during the term of the permit.
- (3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.
- (4) Six-tenths of a ton of PM10 from a single source during the term of the permit and 3.0 tons of PM10 at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder or 25 Pa. Code Article III.
- (5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder or 25 Pa. Code Article III.
 - (6) Other sources and classes of sources determined to be of minor significance by the Department.
- (d) In accordance with § 127.14, the permittee is authorized to install the following minor sources without the need for a plan approval or permit modification:



- (1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.
 - (2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.
- (3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code §123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.
 - (4) Space heaters which heat by direct heat transfer.
 - (5) Laboratory equipment used exclusively for chemical or physical analysis.
 - (6) Other sources and classes of sources determined to be of minor significance by the Department.
- (e) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:
- (1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (c)(4) and (5) of this permit condition.
- (2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.
- (3) Violate any applicable requirement of this permit, the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.
- (f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.
- (g) Except for de minimis emission increases, installation of minor sources made pursuant to this permit condition and Plan Approval Exemptions under 25 Pa. Code § 127.14 (relating to exemptions), the permittee is prohibited from making changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.
- (h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

#014 [25 Pa. Code § 127.3]

Operational Flexibility.

The permittee is authorized to make changes within the facility in accordance with the regulatory provisions outlined in 25 Pa. Code § 127.3 (relating to operational flexibility) to implement the operational flexibility requirements provisions authorized under Section 6.1(i) of the Air Pollution Control Act and the operational flexibility terms and conditions of this permit. The provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements include the following:

- (1) Section 127.14 (relating to exemptions)
- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with Federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)
- (5) Section 127.450 (relating to administrative operating permit amendments)

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SECTION B. General State Only Requirements

- (6) Section 127.462 (relating to minor operating permit modifications)
- (7) Subchapter H (relating to general plan approvals and general operating permits)

#015 [25 Pa. Code § 127.11]

Reactivation

- (a) The permittee may not reactivate a source that has been out of operation or production for at least one year unless the reactivation is conducted in accordance with a plan approval granted by the Department or in accordance with reactivation and maintenance plans developed and approved by the Department in accordance with 25 Pa. Code § 127.11a(a).
- (b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

#016 [25 Pa. Code § 127.36]

Health Risk-based Emission Standards and Operating Practice Requirements.

- (a) When needed to protect public health, welfare and the environment from emissions of hazardous air pollutants from new and existing sources, the permittee shall comply with the health risk-based emission standards or operating practice requirements imposed by the Department, except as precluded by §§ 6.6(d)(2) and (3) of the Air Pollution Control Act [35 P.S. § 4006.6(d)(2) and (3)].
- (b) A person challenging a performance or emission standard established by the Department has the burden to demonstrate that performance or emission standard does not meet the requirements of Section 112 of the Clean Air Act.

#017 [25 Pa. Code § 121.9]

Circumvention.

No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of 25 Pa. Code Article III, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#018 [25 Pa. Code §§ 127.402(d) & 127.442]

Reporting Requirements.

- (a) The permittee shall comply with the applicable reporting requirements of the Clean Air Act, the regulations thereunder, the Air Pollution Control Act and 25 Pa. Code Article III including Chapters 127, 135 and 139.
- (b) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of any air contamination source.
- (c) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

Regional Air Program Manager
PA Department of Environmental Protection
(At the address given in the permit transmittal letter, or otherwise notified)

- (d) Any records or information including applications, forms, or reports submitted pursuant to this permit condition shall contain a certification by a responsible official as to truth, accuracy and completeness. The certifications submitted under this permit shall require a responsible official of the facility to certify that based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate and complete.
- (e) Any records, reports or information submitted to the Department shall be available to the public except for such





records, reports or information which meet the confidentiality requirements of § 4013.2 of the Air Pollution Control Act and §§ 112(d) and 114(c) of the Clean Air Act. The permittee may not request a claim of confidentiality for any emissions data generated for the facility.

#019 [25 Pa. Code §§ 127.441(c) & 135.5]

Sampling, Testing and Monitoring Procedures.

- (a) The permittee shall comply with the monitoring, recordkeeping or reporting requirements of 25 Pa. Code Chapter 139 and the other applicable requirements of 25 Pa. Code Article III and additional requirements related to monitoring, reporting and recordkeeping required by the Clean Air Act and the regulations thereunder including the Compliance Assurance Monitoring requirements of 40 CFR Part 64, where applicable.
- (b) Unless alternative methodology is required by the Clean Air Act and regulations adopted thereunder, sampling, testing and monitoring required by or used by the permittee to demonstrate compliance with any applicable regulation or permit condition shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139.

#020 [25 Pa. Code §§ 127.441(c) and 135.5]

Recordkeeping.

- (a) The permittee shall maintain and make available, upon request by the Department, the following records of monitored information:
 - (1) The date, place (as defined in the permit) and time of sampling or measurements.
 - (2) The dates the analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of the analyses.
 - (6) The operating conditions as existing at the time of sampling or measurement.
- (b) The permittee shall retain records of any required monitoring data and supporting information for at least five (5) years from the date of the monitoring, sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.
- (c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions.

#021 [25 Pa. Code § 127.441(a)]

Property Rights.

This permit does not convey any property rights of any sort, or any exclusive privileges.

#022 [25 Pa. Code § 127.447]

Alternative Operating Scenarios.

The permittee is authorized to make changes at the facility to implement alternative operating scenarios identified in this permit in accordance with 25 Pa. Code § 127.447.



#023 [25 Pa. Code §135.3]

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Reporting

- (a) If the facility is a Synthetic Minor Facility, the permittee shall submit by March 1 of each year an annual emissions report for the preceding calendar year. The report shall include information for all active previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported. All air emissions from the facility should be estimated and reported.
- (b) A source owner or operator of a Synthetic Minor Facility may request an extension of time from the Department for the filing of an annual emissions report, and the Department may grant the extension for reasonable cause.

#024 [25 Pa. Code §135.4]

Report Format

If applicable, the emissions reports shall contain sufficient information to enable the Department to complete its emission inventory. Emissions reports shall be made by the source owner or operator in a format specified by the Department.



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §121.7]

Prohibition of air pollution.

No person may permit air pollution as that term is defined in the act.

002 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

- (a) No person may permit the emission into the outdoor atmosphere of fugitive air contaminant from a source other than the following:
 - (1) Construction or demolition of buildings or structures.
 - (2) Grading, paving and maintenance of roads and streets.
- (3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.
 - (4) Clearing of land.
 - (5) Stockpiling of materials.
 - (6) Open burning operations.
 - (7) N/A
 - (8) N/A
- (9) Sources and classes of sources other than those identified in paragraphs (1)-(8), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:
 - (i) the emissions are of minor significance with respect to causing air pollution; and
- (ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.
- (b) An application form for requesting a determination under either subsection (a)(9) or 129.15(c) is available from the Department. In reviewing these applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, characteristics of emissions, quantity of emissions, and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant shall be required to demonstrate that the requirements of subsections (a)(9) and (c) and 123.2 (relating to fugitive particulate matter) or of the requirements of 129.15(c) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.
- (c) A person responsible for any source specified in subsections (a)(1) -- (7) or (9) shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:
- (1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.
- (2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.
 - (3) Paving and maintenance of roadways.





(4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

(d) N/A

003 [25 Pa. Code §123.2]

Fugitive particulate matter

A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in Pa. Code Title 25, Section 123.1 (a)(1) -- (9) (relating to prohibition of certain fugitive emissions) if such emissions are visible at the point the emissions pass outside the persons property.

004 [25 Pa. Code §123.31]

Limitations

A person may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside the property of the person on whose land the source is being operated.

005 [25 Pa. Code §123.41]

Limitations

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

If the opacity limitations given by § 123.41 conflict with any other opacity limitation in this permit, the more stringent limitation applies.

006 [25 Pa. Code §129.14]

Open burning operations

Outside of air basins. No person may permit the open burning of material in an area outside of air basins in a manner that:

- (1) The emissions are visible, at any time, at the point such emissions pass outside the property of the person on whose land the open burning is being conducted.
- (2) Malodorous air contaminants from the open burning are detectable outside the property of the person on whose land the open burning is being conducted.
 - (3) The emissions interfere with the reasonable enjoyment of life or property.
 - (4) The emissions cause damage to vegetation or property.
 - (5) The emissions are or may be deleterious to human or animal health.

Exceptions: The requirements of subsections (a) and (b) do not apply where the open burning operations result from:

- (1) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.
 - (2) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.
 - (3) A fire set for the prevention and control of disease or pests, when approved by the Department.
- (4) A fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.





- (5) A fire set for the purpose of burning domestic refuse, when the fire is on the premises of a structure occupied solely as a dwelling by two families or less and when the refuse results from the normal occupancy of such structure.
 - (6) A fire set solely for recreational or ceremonial purposes.
 - (7) A fire set solely for cooking food.

Clearing and grubbing wastes. The following is applicable to clearing and grubbing wastes:

(1) As used in this subsection the following terms shall have the following meanings:

Air curtain destructor -- A mechanical device which forcefully projects a curtain of air across a pit in which open burning is being conducted so that combustion efficiency is increased and smoke and other particulate matter are contained.

Clearing and grubbing wastes -- Trees, shrubs, and other native vegetation which are cleared from land during or prior to the process of construction. The term does not include demolition wastes and dirt laden roots.

- (2) Subsection (a) notwithstanding, clearing and grubbing wastes may be burned in a basin subject to the following requirements:
 - (i) Air curtain destructors shall be used when burning clearing and grubbing wastes.
- (ii) Each proposed use of air curtain destructors shall be reviewed and approved by the Department in writing with respect to equipment arrangement, design and existing environmental conditions prior to commencement of burning.

Proposals approved under this subparagraph need not obtain plan approval or operating permits under Chapter 127 (relating to construction modification, reactivation and operation of sources).

- (iii) Approval for use of an air curtain destructor at one site may be granted for a specified period not to exceed 3 months, but may be extended for additional limited periods upon further approval by the Department.
- (iv) The Department reserves the right to rescind approval granted if a determination by the Department indicates that an air pollution problem exists.
- (3) Subsection (b) notwithstanding clearing and grubbing wastes may be burned outside of an air basin, subject to the following limitations:
- (i) Upon receipt of a complaint or determination by the Department that an air pollution problem exists, the Department may order that the open burning cease or comply with subsection (b) of this section.
- (ii) Authorization for open burning under this paragraph does not apply to clearing and grubbing wastes transported from an air basin for disposal outside of an air basin.
- (4) During an air pollution episode, open burning is limited by Chapter 137 (relating to air pollution episodes) and shall cease as specified in such chapter.

[The Jupiter Compressor Station is not located in an air basin.]

II. TESTING REQUIREMENTS.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

If, at any time, the Department has cause to believe that air contaminant emissions from the facility covered by this operating permit are in excess of the limitations specified in, or established pursuant to, any applicable regulation, the Department shall require the permittee to conduct tests deemed necessary to demonstrate compliance. The permittee



shall perform such testing in accordance with the applicable provisions of 25 Pa. Code Chapter 139 (relating to sampling and testing) and in accordance with any restrictions or limitations established by the Department at the time the permittee is notified in writing, of the testing requirement.

008 [25 Pa. Code §139.1]

Sampling facilities.

30-00183

Upon the request of the Department, the person responsible for a source shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance by the Department of tests on such source. The Department will set forth, in the request, the time period in which the facilities shall be provided as well as the specifications for such facilities.

009 [25 Pa. Code §139.3] General requirements.

- (a) Pursuant to 25 Pa. Code § 139.3, at least 90 calendar days prior to commencing a EPA reference method testing program, a test protocol shall be submitted to the Department for review and approval. One electronic copy shall be sent to the Southwest Regional Office Air Quality Program Manager (RA-EPswstacktesting@pa.gov) and one electronic copy shall be sent to the PSIMS Administrator in Central Office (RA-EPstacktesting@pa.gov). The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (b) Pursuant to 25 Pa. Code § 139.3, at least 15 calendar days prior to commencing an emission testing program, notification as to the date and time of testing shall be given to the Southwest Regional Office. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.
- (c) If applicable, pursuant to 40 CFR § 60.8(a), 40 CFR § 61.13(f) and 40 CFR § 63.7(g), complete test reports shall be submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an EPA reference method test program.
- (d) Pursuant to 25 Pa. Code § 139.53(b) a complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or noncompliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:
- 1. A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
- 2. Permit number(s) and condition(s) which are the basis for the evaluation.
- 3. Summary of results with respect to each applicable permit condition.
- 4. Statement of compliance or non-compliance with each applicable permit condition.
- (e) Pursuant to 25 Pa. Code § 139.3, all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (f) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.
- (g) Pursuant to 25 Pa. Code § § 139.53(a)(1) and 139.53(a)(3), one electronic copy of all submittals, besides notifications, shall be sent to the Southwest Regional Office Air Quality Program Manager. In addition, one electronic copy shall be sent to the PSIMS Administrator in Central Office.
- (h) The permittee shall insure all federal reporting requirements contained in the applicable subpart of 40 CFR are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between state and the federal, the most stringent provision, term, condition, method or rule shall be used by default.

[Note: Compliance with emission restrictions that are only applicable at full (100%) load should be included in the test

30-00183



SECTION C. Site Level Requirements

report, as any other statement required by (e)(4) of this condition.]

III. MONITORING REQUIREMENTS.

010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) During periods when the Jupiter Station is manned, the permittee shall conduct a daily inspection during daylight hours of sources covered by this permit that are operating at the facility to determine:
 - (1) the presence of visible emissions.
 - (2) the presence of visible fugitive emissions.
 - (3) the presence of malodors beyond the boundaries of the facility.
- (b) All detected visible emissions, visible fugitive emissions or malodors that have the potential to exceed applicable limits shall be reported to the manager of the facility. If visible stack emissions, fugitive emissions, or potentially objectionable odors are apparent, the Owner/Operator shall take corrective action. Records of each inspection shall be maintained in a log and at the minimum include the date, time, name and title of the observer, along with any corrective action taken as a result.

IV. RECORDKEEPING REQUIREMENTS.

011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

All logs and required records shall be maintained for a minimum of five years. These records must be kept on site for a minimum of two years. They may be stored at an alternative location acceptable to the Department, for the remaining time. All records shall be made available to the Department upon request.

012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall maintain monthly records of operating hours and fuel consumption for each source at this facility. Records shall include natural gas consumption and delivery by sources, and diesel fuel consumption. These records shall be used to calculate emissions for the sources at the facility and shall be used to determine compliance with emission limitations. The records and calculations shall be made available to the Department upon request.

013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) The permittee shall keep records of the daily facility inspections. Records shall include the name of the person conducting the inspections, the date and time of the inspection, and the results of each inspection. If instances of unpermitted visible emissions, visible fugitive emissions and malodorous air emissions are observed, records shall be kept of the corrective action taken to abate same and/or to prevent future occurrences.
- (b) These records shall be maintained in a logbook or equivalent recordkeeping approach, shall be made available to the Department upon request.

014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

GP-5 Section G Condition (2):

For each fugitive emissions component constructed and authorized to operate under GP-5 approved by the Department on or after February 2, 2013, but prior to August 8, 2018, the permittee shall maintain comprehensive and accurate records of the following:

- (a) The fugitive emissions monitoring plan in accordance with 40 CFR § 60.5397a(b) through (d).
- (b) Records of each monitoring survey which must include:



- (i) The facility name and location;
- (ii) The GP-5 authorization number;
- (iii) The date, start time, and end time of the survey;
- (iv) The name of the operator(s) performing the survey;
- (v) The monitoring instrument used;
- (vi) The ambient temperature, sky conditions, and maximum wind speed at the time of the survey;
- (vii) Any deviations from the monitoring plan or a statement that there were none; and
- (viii) Documentation of each fugitive emission including:
 - (A) The identification of each component from which fugitive emissions were detected;
 - (B) The instrument reading of each fugitive emissions component that meets the leak definition;
 - (C) The status of repair of each component including:
 - (1) The repair methods applied in each attempt to repair the component;
- (2) The tagging or digital photographing of each component not repaired during the monitoring survey in which the fugitive emissions were discovered;
 - (3) The reasons a component was placed on delay of repair;
 - (4) The date of successful repair of the component; and
- (5) The information on the instrumentation or method used to resurvey the component after repair, if it was not completed during the monitoring survey in which the fugitive emissions were discovered.

GP-5 Section G Condition (1)(b)(iv):

A leak is defined as:

- (A) Any positive indication, whether audible, visual, or odorous, determined during an AVO inspection;
- (B) Any visible emissions detected by an OGI camera calibrated according to 40 CFR \S 60.18 and a detection sensitivity level of 60 grams/hour; or
- (C) A concentration of 500 ppm calibrated as methane or greater detected by an instrument reading.

[From the General Plan Approval and/or General Operating Permit (BAQ-GPA/GP 5) for Natural Gas Compression Stations, Processing Plants, and Transmission Stations; AG5-30-00024A authorized on March 29, 2022]

015 [25 Pa. Code §135.5]

Recordkeeping

Source owners or operators shall maintain and make available upon request by the Department records including computerized records that may be necessary to comply with 135.21 (relating to reporting; and emission statements). These may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the





needed information by indirect means.

V. REPORTING REQUIREMENTS.

016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

By March 1 of each year, the Owner/Operator of each stationary source emitting criteria pollutants (including but not limited to NOx, CO, VOC, SOx, PM10, and PM2.5), formaldehyde, benzene, and CO2e shall provide the Department with a statement, in a form as the Department may prescribe, for classes or categories of sources, showing the actual emissions of criteria pollutants, formaldehyde, benzene, and CO2e from that source for each reporting period. A description of the method used to calculate the emissions and the time period over which the calculation is based shall be included. The statement shall also contain a certification by a company officer or the plant manager that the information contained in the statement is accurate.

017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

GP-5 Section G Condition (3):

In the required annual report, the records of each monitoring survey conducted during the reporting period shall be included.

The emissions from fugitive emissions components during the reporting period must be included in the emissions inventory report.

[From the General Plan Approval and/or General Operating Permit (BAQ-GPA/GP 5) for Natural Gas Compression Stations, Processing Plants, and Transmission Stations; AG5-30-00024A authorized on March 29, 2022]

018 [25 Pa. Code §127.442]

Reporting requirements.

- (a) The permittee shall report malfunctions, emergencies or incidents of excess emissions to the Department. A malfunction is any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. An emergency is any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator of a facility which requires immediate corrective action to restore normal operation and which causes the emission source to exceed emissions, due to unavoidable increases in emissions attributable to the situation. An emergency shall not include situations caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
- (b) When the malfunction, emergency or incident of excess emissions poses an imminent danger to the public health, safety, welfare, or environment, it shall be reported to the Department and the County Emergency Management Agency by telephone within one (1) hour after the discovery of the malfunction, emergency or incident of excess emissions. The owner or operator shall submit a written or emailed report of instances of such malfunctions, emergencies or incidents of excess emissions to the Department within three (3) business days of the telephone report.
- (c) The report shall describe the following:
- 1. name, permit or authorization number, and location of the facility,
- 2. nature and cause of the malfunction, emergency or incident,
- 3. date and time when the malfunction, emergency or incident was first observed,
- 4. expected duration of excess emissions,
- 5. estimated rate of emissions,
- 6. corrective actions or preventative measures taken.
- (d) Any malfunction, emergency or incident of excess emissions that is not subject to the notice requirements of paragraph (b) of this condition shall be reported to the Department by telephone within 24 hours (or by 4:00 PM of the next business







day, whichever is later) of discovery and in writing or by e-mail within five (5) business days of discovery. The report shall contain the same information required by paragraph (c), and any permit specific malfunction reporting requirements.

- (e) During an emergency an owner or operator may continue to operate the source at their discretion provided they submit justification for continued operation of a source during the emergency and follow all the notification and reporting requirements in accordance with paragraphs (b)-(d), as applicable, including any permit specific malfunction reporting requirements.
- (f) Reports regarding malfunctions, emergencies or incidents of excess emissions shall be submitted to the appropriate DEP Regional Office Air Program Manager.
- (g) Any emissions resulted from malfunction or emergency are to be reported in the annual emissions inventory report, if the annual emissions inventory report is required by permit or authorization.
- (h) Malfunctions shall be reported to the Department at the following address:

PADEP Office of Air Quality 400 Waterfront Drive Pittsburgh, PA 15222-4745 412-442-4000

019 [25 Pa. Code §135.5]

Recordkeeping

Annual emission reporting shall be conducted as follows:

- a. The Owner/Operator shall submit by March 1 of each year, a source report for the preceding calendar year. The report shall include information for all previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported.
- b. A source Owner/Operator may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.

VI. WORK PRACTICE REQUIREMENTS.

020 [25 Pa. Code §127.441]

Operating permit terms and conditions.

All air contamination sources and controls authorized under this Operating Permit shall be operated per the manufacturer's specifications and maintained according to the Manufacturer's Recommended Maintenance Schedule or good air pollution control practices. A copy of the manufacturer's recommended maintenance schedule and records shall be kept of all maintenance and corrective actions.

021 [25 Pa. Code §127.441]

Operating permit terms and conditions.

GP-5 Section G Condition (1)(a):

- (a) For each fugitive emissions component constructed and authorized to operate under GP-5 approved by the Department on or after February 2, 2013, but prior to August 8, 2018, the following applies:
- (i) The permittee shall, at a minimum, on a monthly basis perform a leak detection and repair program that includes audible, visual, and olfactory (AVO) inspections.
- (ii) Within 180 days after the initial startup of a source, the permittee shall at a minimum, on a quarterly basis, use forward looking infrared (FLIR) cameras or other leak detection monitoring devices approved by the Department for the detection of fugitive leaks. The Department may grant an extension for use of FLIR camera upon receipt of a written request from the permittee documenting the justification for the requested extension.





(iii) If any leak is detected, the permittee shall repair the leak as expeditiously as practicable, but no later than fifteen (15) calendar days after the leak is detected, except as provided in 40 CFR §§ 60.482-60.489. The permittee shall record each leak detected and the associated repair activity. The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

[From the General Plan Approval and/or General Operating Permit (BAQ-GPA/GP 5) for Natural Gas Compression Stations, Processing Plants, and Transmission Stations; AG5-30-00024A authorized on March 29, 2022]

VII. ADDITIONAL REQUIREMENTS.

022 [25 Pa. Code §123.42]

Exceptions

The limitations of 123.41 (relating to limitations) shall not apply to a visible emission in any of the following instances:

- (1) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (2) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.

023 [25 Pa. Code §123.43]

Measuring techniques

Visible emissions may be measured using either of the following:

- (1) A device approved by the Department and maintained to provide accurate opacity measurements.
- (2) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

024 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Mass emissions may be determined through engineering calculations based on fuel usage, hours of operation, fuel analysis, CEM data, stack testing, manufacturer's guarantee, AP-42, or other emission factors that are acceptable to the Department.

025 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The facility is subject to 40 CFR, Part 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines and Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution and 40 CFR Part 63, Subpart HH - National Emissions Standards for Hazardous Air Pollutants (NESHAP) from Oil and Natural Gas Production Facilities, 40 CFR, Part 63, Subpart ZZZZ - NESHAP for Stationary Reciprocating Internal Combustion Engines.

In accordance with 40 CFR § 63.13, copies of all requests, reports, applications, submittals and other communications shall be forwarded to both the Environmental Protection Agency and the Pennsylvania Department of Environmental Protection at the addresses shown below, unless otherwise noted:

Director, Air, Toxics, and Radiation Environmental Protection Agency Region III Office of Air Quality 1650 Arch Street Philadelphia, PA 19103 PA Department of Environmental Protection Regional Air Quality Program Manager 400 Waterfront Drive Pittsburgh, PA 15222-4745

This permit contains language from the Code of Federal Regulations (CFR). Should the wording of the federal citations of the conditions in this permit be changed in the CFR, the new wording shall supersede the language of this permit.





026 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.10]

Subpart A--General Provisions

Recordkeeping and reporting requirements.

Paragraph 40 CFR § 63.10(b)(3) states:

(3) Recordkeeping requirement for applicability determinations. If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f), and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any.

This paragraph is applicable to the five, natural gas compressor engines (Source IDs 102A, 103, 107, 109, & 110, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, at the Jupiter Compressor Station.]

VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this permit including Section B (relating to State Only General Requirements).

COMPLIANCE SCHEDULE.

No compliance milestones exist.

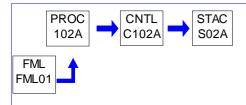
DEP Auth ID: 1219524 DEP PF ID: 717378





Source ID: 102A Source Name: 2370 BHP CAT G3608 COMP ENGINE SN BEN01182

Source Capacity/Throughput:



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

GP-5 Section C Condition (1)(b)(i):

- (i) The emissions from the engine shall not exceed the following emissions standards:
 - (A) Nitrogen oxides: 0.50 g/bhp-hr
 - (B) Carbon monoxide: 47 ppmvd @ 15% O2 or 93% reduction
 - (C) Nonmethane nonethane hydrocarbons (as propane) (excluding formaldehyde): 0.25 g/bhp-hr
 - (D) Formaldehyde: 0.05 g/bhp-hr

[From the General Plan Approval and/or General Operating Permit (BAQ-GPA/GP 5) for Natural Gas Compression Stations, Processing Plants, and Transmission Stations; AG5-30-00024A authorized on March 29, 2022]

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

GP-5 Section C Condition (1)(d):

- (d) The permittee shall:
- (ii) Ensure the engine meets the visible emissions standards, as determined by the methods described in 25 Pa. Code § 123.43, by not exceeding the following limitations:
 - (A) Equal to or greater than 10% for a period or periods aggregating more than three minutes in any one hour; and
 - (B) Equal to or greater than 30% at any time
 - (iii) Install, operate, and maintain a non-resettable hour meter;
- (iv) Limit the engine's time spent at idle during startup or shutdown to a period appropriate for the operation of the engine and air pollution control equipment consistent with good air pollution control practices, not to exceed 30 minutes, during which time the emissions standards do not apply.
- (v) Conduct performance tests and periodic monitoring for the engine as detailed in testing condition GP-5 Section C Condition (4) and monitoring condition GP-5 Section C Condition (5) on the following schedule:

Continuous Compliance Performance test every 8760 hours of operation or every three years and Periodic Monitoring every 2500 hours of operation

[From the General Plan Approval and/or General Operating Permit (BAQ-GPA/GP 5) for Natural Gas Compression Stations, Processing Plants, and Transmission Stations; AG5-30-00024A authorized on March 29, 2022]





003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

- (a) (d) N/A.
- (e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) ... must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. ...
- (f) (h) N/A.

[Table 1 to Subpart JJJJ of Part 60 - NOX, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines GTE 100 HP states:

"For" Engine type and fuel Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn GTE 500 HP and LT 1,350 HP) "with a" Maximum engine power HP GTE 500 "and" Manufacture date 7/1/2010 ", or after," emission standards "are:"

1.0 g NOX/HP-hr 2.0 g CO/HP-hr 0.7 g VOC/HP-hr

"And"

82 ppmvd NOX at 15% O2 270 ppmvd CO at 15% O2 60 ppmvd VOC at 15% O2

For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.]

II. TESTING REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

GP-5 Section C Condition (4):

- (a) When conducting a performance test for the engine, the owner or operator must submit the test protocol for review and approval.
- (b) The owner or operator should conduct the following test procedures:
 - (i) Conduct three test runs of at least one hour duration within 10% of 100% peak (or the highest achievable) load.
- (ii) Select the sampling port location and the number and location of traverse points at the exhaust using 40 CFR Part 60, Appendix A-1, Method 1 or 1A depending on stack diameter, or the sampling points selected according to 40 CFR Part 60, Appendix A-4, Method 7E Section 8.1.2.
 - (iii) Determine the effluent characteristics by either:
- (A) Calculating the exhaust flow in accordance with 40 CFR Part 60, Appendix A-7, Method 19 and measuring the O2 concentration using 40 CFR Part 60, Appendix A-2, Method 3A; or
- (B) By measuring: (1) The flow velocity, stack temperature, static pressure, and barometric pressure using 40 CFR Part 60, Appendix A-1, Method 2 or 2C depending on stack diameter; (2) The gas density using 40 CFR Part 60, Appendix A-





- 2, Method 3A; and (3) The moisture content using 40 CFR Part 60, Appendix A-3, Method 4.
 - (iv) Simultaneous to the determination of the O2 concentration in (iii)(A) or (B) above, determine:
 - (A) The NOX concentration of the exhaust gas using 40 CFR Part 60, Appendix A-4, Method 7E;
 - (B) The CO concentration of the exhaust gas using 40 CFR Part 60, Appendix A-4, Method 10;
 - (C) The NMNEHC concentration, as propane, excluding formaldehyde of the exhaust gas using ALT-106; and
 - (D) The formaldehyde concentration of the exhaust gas, if applicable, using 40 CFR Part 63, Appendix A, Method 320.
- (c) If at any time the permittee operates the engine in excess of the highest achievable load plus 10%, the owner or operator must perform a stack test within 180 days from the anomalous operation.

[From the General Plan Approval and/or General Operating Permit (BAQ-GPA/GP 5) for Natural Gas Compression Stations, Processing Plants, and Transmission Stations; AG5-30-00024A authorized on March 29, 2022]

III. MONITORING REQUIREMENTS.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

GP-5 Section C Condition (5):

- (a) When conducting periodic monitoring on the engine, the permittee may follow the procedures in (b) below. If the permittee decides to deviate from those procedures, they must submit a request to use an alternate procedure, in writing, at least 60 days prior to performing the periodic monitoring. In the alternate procedure request, the permittee must demonstrate the alternate procedure's equivalence to the standard procedure to the satisfaction of the Division of Source Testing and Monitoring.
- (b) Standardized Periodic Monitoring Procedure.
 - (i) Conduct three test runs of at least 20 minutes duration within 10% of 100% peak (or the highest achievable) load.
- (ii) Determine NOX and CO emissions and O2 concentrations in the exhaust with either an electro-chemical cell portable gas analyzer used and maintained in accordance with the manufacturer's specifications and following the procedures specified in the current version of ASTM D6522 or by following the procedures in testing condition GP-5 Section C Condition (4)(b) (ii) (iv) (A) and (B) in the testing section.
- (iii) If the measured NOX or CO emissions concentrations are in exceedance of the emissions limit, the permittee must perform a stack test in accordance with the Performance Testing Requirements within 180 days of the periodic monitoring.
- (c) The 2,500 hours of operation count resets after any performance test performed in accordance with the Testing requirements.

[From the General Plan Approval and/or General Operating Permit (BAQ-GPA/GP 5) for Natural Gas Compression Stations, Processing Plants, and Transmission Stations; AG5-30-00024A authorized on March 29, 2022]

IV. RECORDKEEPING REQUIREMENTS.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

GP-5 Section C Condition (2):

(2) For the engine, the permittee shall maintain comprehensive and accurate records of the following:





- (a) The date the engine was authorized for use;
- (b) The make, model, and serial number of the engine;
- (c) Either a copy of the manufacturer's maintenance instructions or an alternative maintenance plan;
- (d) Records of maintenance conducted on the engine and installed air pollution control devices;
- (e) A copy of the manufacturer's engine certification or vendor guarantees;
- (f) The results of each periodic monitoring;
- (g) The summary for each complete test report; and
- (h) The emissions calculations for each engine in accordance with 25 Pa. Code § 135.5.

[From the General Plan Approval and/or General Operating Permit (BAQ-GPA/GP 5) for Natural Gas Compression Stations, Processing Plants, and Transmission Stations; AG5-30-00024A authorized on March 29, 2022]

V. REPORTING REQUIREMENTS.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

GP-5 Section C Condition (3):

The emissions from the engine operated during the reporting period must be included in the emissions inventory report.

[From the General Plan Approval and/or General Operating Permit (BAQ-GPA/GP 5) for Natural Gas Compression Stations, Processing Plants, and Transmission Stations; AG5-30-00024A authorized on March 29, 2022]

VI. WORK PRACTICE REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

GP-5 Section A Condition (10)(c):

- (c) The engine and control device shall be:
 - (i) Operated in such a manner as not to cause air pollution, as that term is defined in 25 Pa. Code § 121.1;
- (ii) Operated and maintained in accordance with the manufacturer's specifications, procedures, and recommended maintenance schedule, as provided in the Application for Authorization to Use GP-5, or an alternate procedure approved by the Department that achieves equal or greater emissions reductions in accordance with 25 Pa. Code § 127.12b;
- (iii) Operated and maintained in accordance with the fugitive emission requirements of 25 Pa. Code § 123.1 and § 123.2; and
- (iv) Operated and maintained in such a manner that malodors are not detectable outside the property of the owner or operator on whose land the facility is being operated in accordance with 25 Pa. Code § 123.31.

[From the General Plan Approval and/or General Operating Permit (BAQ-GPA/GP 5) for Natural Gas Compression Stations, Processing Plants, and Transmission Stations; AG5-30-00024A authorized on March 29, 2022]





ADDITIONAL REQUIREMENTS. VII.

009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

This engine is an affected source under 40 CFR Part 63, Subpart ZZZZ-National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. However, under 40 CFR §63.6590(c) this source is not subject to any of the requirements of Subpart ZZZZ provided they comply with the already applicable requirements of 40 CFR Part 60, Subpart JJJJ.

[For this permit condition only, source means a process unit, in conformance with 40 CFR §60.2.]

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines Am I subject to this subpart?

- (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
 - (1) (2) N/A.
- (3) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG, where the manufacturer participates in the voluntary manufacturer certification program described in this subpart and where the date of manufacture is:
- (i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
 - (ii) (iv) N/A.
 - (4) (5) N/A.
- (6) The provisions of §60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006.
- (b) (f) N/A.

This lean burn, SI, reciprocating, internal combustion engine is an affected source under 40 CFR Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.]

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4234] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

- (a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.
 - (1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the



manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

- (2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.
 - (i) (ii) N/A.
- (iii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.
- (b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.
- (1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.
 - (2) N/A.
- (c) (d) N/A.
- (e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

(f) -(i) N/A.

013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4244]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

- (a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.
- (b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.
- (c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
- (d) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in



the engine exhaust using Equation 1 of this section:

 $ER = (Cd * 1.912 * (10^{(-3)}) * Q * T) / HP-hr (Eq. 1)$

Where:

ER = Emission rate of NOX in g/HP-hr.

Cd = Measured NOX concentration in parts per million by volume (ppmv).

1.912 * (10^(-3)) = Conversion constant for ppm NOX to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = (Cd * 1.164 * (10^{(-3)}) * Q * T) / HP-hr (Eq. 2)$$

Where:

ER = Emission rate of CO in g/HP-hr.

Cd = Measured CO concentration in ppmv.

1.164 * (10^(-3)) = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = (Cd * 1.833 * (10^{(-3)}) * Q * T) / HP-hr (Eq. 3)$$

Where:

ER = Emission rate of VOC in g/HP-hr.

Cd = VOC concentration measured as propane in ppmv.

1.833 * (10^(-3)) = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

RFi = CMi/CAi (Eq. 4)

Where:

RFi = Response factor of compound i when measured with EPA Method 25A.

CMi = Measured concentration of compound i in ppmv as carbon.

CAi = True concentration of compound i in ppmv as carbon.





Cicorr = RFi * Cimeas (Eq. 5)

Where:

Cicorr = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

Cimeas = Concentration of compound i measured by EPA Method 320, ppmv as carbon

CPeq = 0.6098 * Cicorr (Eq. 6)

Where:

CPeq = Concentration of compound i in mg of propane equivalent per DSCM.

[Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests states:

As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load:

For each: 1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244, complying with the requirement to:

- a. limit the concentration of NOX in the stationary SI internal combustion engine exhaust. You must:
- i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine; Using: (1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate.
- ii. Determine the O2 concentration of the stationary internal combustion engine exhaust at the sampling port location; Using (2) Method 3, 3A, or 3B (See Note b.) of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00. (Reapproved 2005, See Notes a and e.) According to the following requirements: (b) Measurements to determine O2 concentration must be made at the same time as the measurements for NOX concentration.
- iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust; Using: (3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7.
- iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; Using: (4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03. (See Note e.) According to the following requirements: (c) Measurements to determine moisture must be made at the same time as the measurement for NOX concentration, and
- v. Measure NOX at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device. Using: (5) Method 7E of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (Reapproved 2005, See Notes a and e.), Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03. (See Note e.) According to the following requirements: (d) Results of this test consist of the average of the three 1-hour or longer runs.
 - b. limit the concentration of CO in the stationary SI internal combustion engine exhaust. You must:
- i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine; Using: (1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate.
- ii. Determine the O2 concentration of the stationary internal combustion engine exhaust at the sampling port location; Using: (2) Method 3, 3A, or 3B (See Note b.) of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00. (Reapproved 2005, See Notes a and e.) According to the following requirements: (b) Measurements to determine O2 concentration must be made at the same time as the measurements for CO concentration.



- iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust; Using: (3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7.
- iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; Using: (4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03. (See Note e.) According to the following requirements c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration, and
- v. Measure CO at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device. Using: (5) Method 10 of 40 CFR part 60, appendix A4, ASTM Method D6522-00 (Reapproved 2005, See Notes a and e.), Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03. (See Note e.) According to the following requirements: (d) Results of this test consist of the average of the three 1-hour or longer runs.
 - c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust. You must:
- i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine; Using: (1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate.
- ii. Determine the O2 concentration of the stationary internal combustion engine exhaust at the sampling port location; Using: (2) Method 3, 3A, or 3B (See Note b.) of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00. (Reapproved 2005, See Notes a and e.) According to the following requirements: (b) Measurements to determine O2 concentration must be made at the same time as the measurements for VOC concentration.
- iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust Using: (3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7.
- iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; Using: (4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (See Note e.) According to the following requirements: (c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration, and
- v. Measure VOC at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device. Using: (5) Methods 25A and 18 of 40 CFR part 60, appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A-6 (See Notes c and d.), Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (See Note e.) According to the following requirements: (d) Results of this test consist of the average of the three 1-hour or longer runs.

Notes:

- a. Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.
- b. You may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O2 content of the exhaust gas as an alternative to EPA Method 3B. AMSE PTC 19.10-1981 incorporated by reference, see 40 CFR 60.17
- c. You may use EPA Method 18 of 40 CFR part 60, appendix A-6, provided that you conduct an adequate pre-survey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (http://www.epa.gov/ttn/emc/prelim/otm11.pdf).
- d. You may use ASTM D6420-99 (2004), Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry as an alternative to EPA Method 18 for measuring total nonmethane organic. ASTM D6420-99(2004) incorporated by reference; see 40 CFR 60.17.
- e. Incorporated by reference; see 40 CFR 60.17.





014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

- (a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.
 - (1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
 - (2) Maintenance conducted on the engine.
- (3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- (4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a noncertified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.
- (b) (c) N/A.
- (d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

(e) N/A.

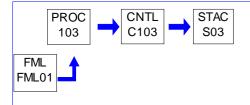




Source ID: 103 Source Name: 2370 BHP CAT G3608 COMP ENGINE SN BEN00629

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions from each Caterpillar 3608 compressor engine (Source IDs 103 and 107) shall be limited to a maximum of the following:

At all operating conditions excluding startup, shutdown, and malfunction:

a. NOx 2.61 lb/hr b. CO 1.00 lb/hr c. VOC 0.99 lb/hr* d. Formaldehyde 0.21 lb/hr** e. All HAPs, combined 0.55 lb/hr

[From PA-30-00183A, Restrictions #001 - #005, in each of Source IDs 103 and 107, Section D. The emission limits for NOx, CO, VOC, and formaldehyde were based on the following maximum emission rates, determined under BAT at rated bhp and rpm. These rates are not, themselves, emission limits:

a. NOx 0.5 g/bhp-hr b. CO 0.193 g/bhp-hr c. VOC 0.189 g/bhp-hr* d. Formaldehyde 0.040 g/bhp-hr***

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

^{*} Based on U.S. EPA Methods 18/25A or 25A/320 (or Agency approved equivalent, test method does not include formaldehyde)

^{**} Based on U.S. EPA Methods 320 or 328 (or Agency approved equivalent)





IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

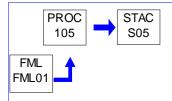
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).





Source ID: 105 Source Name: EMERGENCY GENERATOR 1 (NG-FIRED, 690-BHP)

Source Capacity/Throughput:



RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emission into the outdoor atmosphere of nitrogen oxides, expressed as NO2, from 450-kw Emergency Generator Engine #1 in excess of the rate of 33.01 pounds per hour is prohibited. This rate of emission is based on a maximum emission of 21.7 grams/bhp-hr when the engine is at full load.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emission into the outdoor atmosphere of carbon monoxide from 450-kw Emergency Generator Engine #1 in excess of the rate of 2.28 pounds per hour is prohibited. This rate of emission is based on a maximum emission of 1.50 grams/bhp-hr when the engine is at full load.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emission into the outdoor atmosphere of volatile organic compounds from 450-kw Emergency Generator Engine #1 in excess of the rate of 0.32 pounds per hour is prohibited. This rate of emission is based on a maximum emission of 0.21 grams/bhp-hr when the engine is at full load.

Operation Hours Restriction(s).

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Operation of 450-kw Emergency Generator Engine #1 shall be limited to no more than 399 hours in any consecutive 12month period.

TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

MONITORING REQUIREMENTS. III.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).



V. REPORTING REQUIREMENTS.

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No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

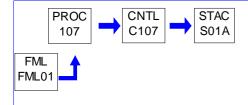




Source ID: 107 Source Name: 2370 BHP CAT G3608 COMP ENGINE 1A, SN BEN00692

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions from each Caterpillar 3608 compressor engine (Source IDs 103 and 107) shall be limited to a maximum of the following:

At all operating conditions excluding startup, shutdown, and malfunction:

a. NOx 2.61 lb/hr
b. CO 1.00 lb/hr
c. VOC 0.99 lb/hr*
d. Formaldehyde 0.21 lb/hr**
e. All HAPs, combined 0.55 lb/hr

[From PA-30-00183A, Restrictions #001 - #005, in each of Source IDs 103 and 107, Section D. The emission limits for NOx, CO, VOC, and formaldehyde were based on the following maximum emission rates, determined under BAT at rated bhp and rpm. These rates are not, themselves, emission limits:

a. NOx 0.5 g/bhp-hr b. CO 0.193 g/bhp-hr c. VOC 0.189 g/bhp-hr* d. Formaldehyde 0.040 g/bhp-hr***

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

^{*} Based on U.S. EPA Methods 18/25A or 25A/320 (or Agency approved equivalent, test method does not include formaldehyde)

^{**} Based on U.S. EPA Methods 320 or 328 (or Agency approved equivalent)





RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

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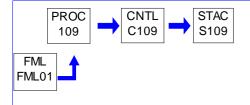


SECTION D. Source Level Requirements

Source ID: 109 Source Name: 4735 BHP CAT G3616LE COMP ENGINE SN BLB00907

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions from each G3616LE compressor engine (Source IDs 109 and 110) shall be limited to the following:

At rated bhp and speed:

- a. NOx 0.5 g/bhp-hr
- b. CO 0.14 g/bhp-hr
- c. VOC 0.19 g/bhp-hr*
- d. Formaldehyde 0.03 g/bhp-hr**

At all operating conditions excluding startup, shutdown, and malfunction:

- A. NOx 5.22 lb/hr
- B. CO 1.43 lb/hr
- C. VOC 1.98 lb/hr*
- D. Formaldehyde 0.28 lb/hr**
- * Based on U.S. EPA Methods 18/25A or 25A/320 (or Agency approved equivalent, does not include formaldehyde)
- ** Based on U.S. EPA Methods 320 or 328 (or Agency approved equivalent)

[From PA-30-00183C, Restriction #002 of Source Group G03, Section E. Compliance with each of "a", "b", "c," and "d" of this condition is assured by compliance with each of "A", "B", "C," and "D" of this condition.]

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall maintain the following comprehensive and accurate records:



- a. The number of hours per month that each G3616LE engine operated.
- b. The amount of fuel used per month by each G3616LE engine.
- c. Records including a description of testing methods, results, all engine operating data collected during tests, and a copy of the calculations performed to determine compliance with emission standards for each G3616LE engine.
- d. Copies of the report that demonstrates that the G3616LE engines were operating at maximum routine operating conditions and within 10 percent of 100 percent peak load (or the highest achievable load) during performance testing.
- e. Copies of the manufacturer's recommended maintenance schedule for the G3616LE engines and catalysts.
- f. Records of any maintenance conducted on the G3616LE engines and catalysts.
- g. Records of catalyst inlet temperature readings performed once each month on each G3616LE engine operated during the month.
- h. Records of a fractional gas analysis performed at least once every six months on the inlet natural gas to the facility.
- i. Records of facility-wide inspections including the date, time, name, and title of the observer, along with any corrective action taken as a result.
- j. Records of any leak detected and associated repair activity through the leak detection and repair or maintenance program.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 109 and 110:

The Owner/Operator of a reciprocating compressor affected facility is required to maintain the records identified as specified in 40 CFR §60.7(f) and as follows: (Additional authority for this condition is derived from 40 CFR §60.5420).

- a. Records of the cumulative number of hours of operation or number of months since initial startup or October 15, 2012, or the previous replacement of the reciprocating compressor rod packing, whichever is later.
- b. Records of the date and time of each reciprocating compressor rod packing replacement.
- c. Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in §60.5385.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall incorporate a leak detection and repair or maintenance program at the Facility within 180 days of startup of either Caterpillar G3616LE compressor engine. Components subject to this program shall include but not be limited to valves, connectors, open ended lines, pressure relief valves, and meters. Frequency of leak detection shall be on a quarterly basis. Acceptable leak detection methods include any of the following:

a. Optical gas imaging instrument. Use an optical gas imaging instrument for equipment leak detection in accordance with 40 CFR Part 60, Subpart A, § 60.18 of the Alternative work practice for monitoring equipment leaks, § 60.18(i)(1)(i); §





60.18(i)(2)(i) except that the monitoring frequency shall be quarterly using the detection sensitivity level of 60 grams per hour as stated in 40 CFR Part 60, subpart A, Table 1: Detection Sensitivity Levels; § 60.18(i)(2)(ii) and (iii) except the gas chosen shall be methane, and § 60.18(i)(2)(iv) and (v); § 60.18(i)(3); § 60.18(i)(4)(i) and (v); including the requirements for daily instrument checks and distances, and excluding requirements for video records. Any emissions detected by the optical gas imaging instrument is a leak unless screened with Method 21 (40 CFR part 60, appendix A-7) monitoring, in which case 10,000 ppm or greater is designated a leak. In addition, you must operate the optical gas imaging instrument to image the source types required by this subpart in accordance with the instrument manufacturer's operating parameters. Unless using methods in paragraph (b) of this condition, an optical gas imaging instrument must be used for all source types that are inaccessible and cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

- b. Method 21. Use the equipment leak detection methods in 40 CFR Part 60, appendix A-7, Method 21. If using Method 21 monitoring, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected. Inaccessible emissions sources, as defined in 40 CFR Part 60, are not exempt from this subpart. Owners or operators must use alternative leak detection devices as described in paragraph (a) or (b) of this condition to monitor inaccessible equipment leaks or vented emissions.
- c. Infrared laser beam illuminated instrument. Use an infrared laser beam illuminated instrument for equipment leak detection. Any emissions detected by the infrared laser beam illuminated instrument is a leak unless screened with Method 21 monitoring, in which case 10,000 ppm or greater is designated a leak. In addition, you must operate the infrared laser beam illuminated instrument to detect the source types required by this subpart in accordance with the instrument manufacturer's operating parameters.
- d. Acoustic leak detection device. Use the acoustic leak detection device to detect through-valve leakage. When using the acoustic leak detection device to quantify the through-valve leakage, you must use the instrument manufacturer's calculation methods to quantify the through-valve leak. When using the acoustic leak detection device, if a leak of 3.1 scf per hour or greater is calculated, a leak is detected. In addition, you must operate the acoustic leak detection device to monitor the source valves required by 40 CFR Part 60 Subpart W in accordance with the instrument manufacturer's operating parameters. Acoustic stethoscope type devices designed to detect through valve leakage when put in contact with the valve body and that provide an audible leak signal but do not calculate a leak rate can be used to identify non-leakers with subsequent measurement required to calculate the rate if through-valve leakage is identified. Leaks are reported if a leak rate of 3.1 scf per hour or greater is measured. If any leak is detected, the Owner/Operator shall repair the leak as expeditiously as practicable, but no later than fifteen (15) days after the leak is detected, except as provided in 40 CFR § 60.482-9. The Department may grant an extension for the use of a leak detection method upon receipt of a written request from the Owner/Operator documenting justification for the requested extension.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Inlet temperature for the EMIT Technologies (or equivalent) oxidation catalysts installed on the Caterpillar G3616LE compressor engines shall be maintained between 450°F and 1350°F (or as otherwise specified by the manufacturer)under all operating conditions excluding startup, shutdown, or malfunction.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 109 and 110:

The Owner/Operator shall comply with the following standards for each reciprocating compressor affected facility (additional authority for this condition is derived from 40 CFR §60.5385):

- a. You must replace the reciprocating compressor rod packing according to either paragraph (a)(1) or (2) of this section.
- 1) Before the compressor has operated for 26,000 hours. The number of hours of operation must be continuously monitored beginning upon initial startup of your reciprocating compressor affected facility, or October 15, 2012, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.
 - 2) Prior to 36 months from the date of the most recent rod packing replacement, or 36 months from the date of startup for







a new reciprocating compressor for which the rod packing has not yet been replaced.

- b. You must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by §60.5410.
- c. You must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by §60.5415.
- d. You must perform the required notification, recordkeeping, and reporting as required by §60.5420.

VII. ADDITIONAL REQUIREMENTS.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 109 and 110:

Continuous compliance with standards for reciprocating compressors shall be demonstrated according to the following requirements. (Additional authority for this condition is derived from 40 CFR §60.5415.)

- a. You must continuously monitor the number of hours of operation for each reciprocating compressor affected facility or track the number of months since initial startup, or October 15, 2012, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.
- b. You must submit the annual report as required in §60.5420(b) and maintain records as required in §60.5420(c)(3).
- c. You must replace the reciprocating compressor rod packing before the total number of hours of operation reaches 26,000 hours or the number of months since the most recent rod packing replacement reaches 36 months.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 109 and 110:

The compressors associated with Engines 109 and 110 are subject to the requirements under 40 CFR Part 60, Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (additional authority for this condition is derived from 40 CFR §60.5365)

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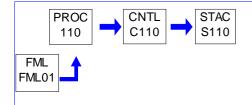


SECTION D. Source Level Requirements

Source ID: 110 Source Name: 4735 BHP CAT G3616LE COMP ENGINE SN BLB00904

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G01



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions from each G3616LE compressor engine (Source IDs 109 and 110) shall be limited to the following:

At rated bhp and speed:

- a. NOx 0.5 g/bhp-hr
- b. CO 0.14 g/bhp-hr
- c. VOC 0.19 g/bhp-hr*
- d. Formaldehyde 0.03 g/bhp-hr**

At all operating conditions excluding startup, shutdown, and malfunction:

- A. NOx 5.22 lb/hr
- B. CO 1.43 lb/hr
- C. VOC 1.98 lb/hr*
- D. Formaldehyde 0.28 lb/hr**
- * Based on U.S. EPA Methods 18/25A or 25A/320 (or Agency approved equivalent, does not include formaldehyde)
- ** Based on U.S. EPA Methods 320 or 328 (or Agency approved equivalent)

[From PA-30-00183C, Restriction #002 of Source Group G03, Section E. Compliance with each of "a", "b", "c," and "d" of this condition is assured by compliance with each of "A", "B", "C," and "D" of this condition.]

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall maintain the following comprehensive and accurate records:





- a. The number of hours per month that each G3616LE engine operated.
- b. The amount of fuel used per month by each G3616LE engine.
- c. Records including a description of testing methods, results, all engine operating data collected during tests, and a copy of the calculations performed to determine compliance with emission standards for each G3616LE engine.
- d. Copies of the report that demonstrates that the G3616LE engines were operating at maximum routine operating conditions and within 10 percent of 100 percent peak load (or the highest achievable load) during performance testing.
- e. Copies of the manufacturer's recommended maintenance schedule for the G3616LE engines and catalysts.
- f. Records of any maintenance conducted on the G3616LE engines and catalysts.
- g. Records of catalyst inlet temperature readings performed once each month on each G3616LE engine operated during the month.
- h. Records of a fractional gas analysis performed at least once every six months on the inlet natural gas to the facility.
- i. Records of facility-wide inspections including the date, time, name, and title of the observer, along with any corrective action taken as a result.
- j. Records of any leak detected and associated repair activity through the leak detection and repair or maintenance program.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 109 and 110:

The Owner/Operator of a reciprocating compressor affected facility is required to maintain the records identified as specified in 40 CFR §60.7(f) and as follows: (Additional authority for this condition is derived from 40 CFR §60.5420).

- a. Records of the cumulative number of hours of operation or number of months since initial startup or October 15, 2012, or the previous replacement of the reciprocating compressor rod packing, whichever is later.
- b. Records of the date and time of each reciprocating compressor rod packing replacement.
- c. Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in §60.5385.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall incorporate a leak detection and repair or maintenance program at the Facility within 180 days of startup of either Caterpillar G3616LE compressor engine. Components subject to this program shall include but not be limited to valves, connectors, open ended lines, pressure relief valves, and meters. Frequency of leak detection shall be on a quarterly basis. Acceptable leak detection methods include any of the following:

a. Optical gas imaging instrument. Use an optical gas imaging instrument for equipment leak detection in accordance with 40 CFR Part 60, Subpart A, § 60.18 of the Alternative work practice for monitoring equipment leaks, § 60.18(i)(1)(i); §

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SECTION D. Source Level Requirements

60.18(i)(2)(i) except that the monitoring frequency shall be quarterly using the detection sensitivity level of 60 grams per hour as stated in 40 CFR Part 60, subpart A, Table 1: Detection Sensitivity Levels; § 60.18(i)(2)(ii) and (iii) except the gas chosen shall be methane, and § 60.18(i)(2)(iv) and (v); § 60.18(i)(3); § 60.18(i)(4)(i) and (v); including the requirements for daily instrument checks and distances, and excluding requirements for video records. Any emissions detected by the optical gas imaging instrument is a leak unless screened with Method 21 (40 CFR part 60, appendix A-7) monitoring, in which case 10,000 ppm or greater is designated a leak. In addition, you must operate the optical gas imaging instrument to image the source types required by this subpart in accordance with the instrument manufacturer's operating parameters. Unless using methods in paragraph (b) of this condition, an optical gas imaging instrument must be used for all source types that are inaccessible and cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

- b. Method 21. Use the equipment leak detection methods in 40 CFR Part 60, appendix A-7, Method 21. If using Method 21 monitoring, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected. Inaccessible emissions sources, as defined in 40 CFR Part 60, are not exempt from this subpart. Owners or operators must use alternative leak detection devices as described in paragraph (a) or (b) of this condition to monitor inaccessible equipment leaks or vented emissions.
- c. Infrared laser beam illuminated instrument. Use an infrared laser beam illuminated instrument for equipment leak detection. Any emissions detected by the infrared laser beam illuminated instrument is a leak unless screened with Method 21 monitoring, in which case 10,000 ppm or greater is designated a leak. In addition, you must operate the infrared laser beam illuminated instrument to detect the source types required by this subpart in accordance with the instrument manufacturer's operating parameters.
- d. Acoustic leak detection device. Use the acoustic leak detection device to detect through-valve leakage. When using the acoustic leak detection device to quantify the through-valve leakage, you must use the instrument manufacturer's calculation methods to quantify the through-valve leak. When using the acoustic leak detection device, if a leak of 3.1 scf per hour or greater is calculated, a leak is detected. In addition, you must operate the acoustic leak detection device to monitor the source valves required by 40 CFR Part 60 Subpart W in accordance with the instrument manufacturer's operating parameters. Acoustic stethoscope type devices designed to detect through valve leakage when put in contact with the valve body and that provide an audible leak signal but do not calculate a leak rate can be used to identify non-leakers with subsequent measurement required to calculate the rate if through-valve leakage is identified. Leaks are reported if a leak rate of 3.1 scf per hour or greater is measured. If any leak is detected, the Owner/Operator shall repair the leak as expeditiously as practicable, but no later than fifteen (15) days after the leak is detected, except as provided in 40 CFR § 60.482-9. The Department may grant an extension for the use of a leak detection method upon receipt of a written request from the Owner/Operator documenting justification for the requested extension.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Inlet temperature for the EMIT Technologies (or equivalent) oxidation catalysts installed on the Caterpillar G3616LE compressor engines shall be maintained between 450°F and 1350°F (or as otherwise specified by the manufacturer)under all operating conditions excluding startup, shutdown, or malfunction.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 109 and 110:

The Owner/Operator shall comply with the following standards for each reciprocating compressor affected facility (additional authority for this condition is derived from 40 CFR §60.5385):

- a. You must replace the reciprocating compressor rod packing according to either paragraph (a)(1) or (2) of this section.
- 1) Before the compressor has operated for 26,000 hours. The number of hours of operation must be continuously monitored beginning upon initial startup of your reciprocating compressor affected facility, or October 15, 2012, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.
 - 2) Prior to 36 months from the date of the most recent rod packing replacement, or 36 months from the date of startup for





a new reciprocating compressor for which the rod packing has not yet been replaced.

- b. You must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by §60.5410.
- c. You must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by §60.5415.
- d. You must perform the required notification, recordkeeping, and reporting as required by §60.5420.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 109 and 110:

Continuous compliance with standards for reciprocating compressors shall be demonstrated according to the following requirements. (Additional authority for this condition is derived from 40 CFR §60.5415.)

- a. You must continuously monitor the number of hours of operation for each reciprocating compressor affected facility or track the number of months since initial startup, or October 15, 2012, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.
- b. You must submit the annual report as required in §60.5420(b) and maintain records as required in §60.5420(c)(3).
- c. You must replace the reciprocating compressor rod packing before the total number of hours of operation reaches 26,000 hours or the number of months since the most recent rod packing replacement reaches 36 months.

VII. ADDITIONAL REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 109 and 110:

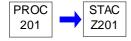
The compressors associated with Engines 109 and 110 are subject to the requirements under 40 CFR Part 60, Subpart OOOO – Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (additional authority for this condition is derived from 40 CFR §60.5365)

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Source ID: 201 Source Name: HEATERS/REBOILERS

Source Capacity/Throughput:



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

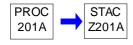
VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).



Source ID: 201A Source Name: MISC VOCS, TANKS, LEAKS, BLOWDOWN, PIGGING, ETC

Source Capacity/Throughput:



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).





Source ID: 401 Source Name: TEG DEHYDRATION UNIT 1

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G02



RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

MONITORING REQUIREMENTS. III.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

RECORDKEEPING REQUIREMENTS. IV.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

WORK PRACTICE REQUIREMENTS. VI.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

ADDITIONAL REQUIREMENTS. VII.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).





Source ID: 402 Source Name: TEG DEHYDRATION UNIT 2

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G02



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).





Source ID: 403 Source Name: TEG DEHYDRATION UNIT 3

Source Capacity/Throughput:

Conditions for this source occur in the following groups: G02



RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

MONITORING REQUIREMENTS. III.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

RECORDKEEPING REQUIREMENTS. IV.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

WORK PRACTICE REQUIREMENTS. VI.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

ADDITIONAL REQUIREMENTS. VII.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

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Group Name: G01

Group Description: Natural Gas Compressors #1A, #3, #4, and #5

Sources included in this group

ID	Name
103	2370 BHP CAT G3608 COMP ENGINE SN BEN00629
107	2370 BHP CAT G3608 COMP ENGINE 1A, SN BEN00692
109	4735 BHP CAT G3616LE COMP ENGINE SN BLB00907
110	4735 BHP CAT G3616LE COMP ENGINE SN BLB00904

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.1]

Purpose.

Visible emissions in excess of the following limitations are prohibited:

- 1. Equal to or greater than 10% for a period or periods aggregating more than 3 minutes in any one hour.
- 2. Equal to or greater than 30% at any time.

II. TESTING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 103 and 107:

For each of these engines, the permittee shall perform stack testing in accordance with 25 Pa. Code Chapter 139, no less frequently than once every twelve (12) months. (This testing frequency will also ensure compliance with the frequency of testing required by 40 CFR, Subpart JJJJ, § 60.4243(a)(2)(iii).). Testing shall be conducted for NOx, CO, VOCs, and formaldehyde by methods approved by the Department.

Stack testing for nitrogen oxides shall be conducted by EPA Test Method 7E, or Department approved equivalent. Stack testing for carbon monoxide shall be conducted by EPA Test Method 10, or Department approved equivalent. Stack Testing for VOC shall be conducted by EPA Test Method 25A, or Department approved equivalent. Stack testing for formaldehyde shall be conducted by EPA Test Method 320 or Department approved equivalent.

For purposes of demonstrating compliance with the VOC limits established herein, the following shall apply: Total hydrocarbons as measured by Method 25A or Agency approved equivalent, minus methane and ethane as measured by Method 320 or Agency approved equivalent. All compounds should be reported on an "as propane" basis.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For the compressor engines in this Source Group (G01), performance testing shall be conducted as follows:

- a. The Owner/Operator shall perform NOx stack emission tests upon each compressor engine at the Facility according to the requirements of 25 Pa. Code Chapter 139 and 40 CFR §60.4244. Portable analyzer testing shall be conducted according to ASTM Method D6522-00, or other portable methods if approved by the Department.
- b. The Owner/Operator shall perform CO and VOC stack emission tests upon each compressor engine at the Facility according to the requirements of 25 Pa. Code Chapter 139 and 40 CFR § 60.4244. Portable analyzer testing shall be conducted according to ASTM Methods D6522-00 and D6348-03, or other methods if approved by the Department.
- c. The Owner/Operator shall perform formaldehyde stack emission tests upon each compressor engine at the Facility according to the requirements of 25 Pa. Code Chapter 139 and 40 CFR § 60.4244.
- d. The Owner/Operator shall submit three copies of a one-time protocol to the Department for review for the use of a portable analyzer and may repeat portable analyzer testing without additional protocol approvals provided that the same





method and equipment are used. All proposed performance test methods shall be identified in the pre-test protocol and approved by the Department prior to testing.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 109 and 110:

The Owner/Operator shall perform NOx and CO emission tests upon each Caterpillar G3616LE compressor engine at the Facility according to the requirements of 40 CFR § 60.4244, with a maximum interval of five years from the previous EPA Method test.

The Owner/Operator shall perform VOC emission tests upon each Caterpillar G3616LE compressor engine at the Facility according to the requirements of 40 CFR § 60.4244 ,with a maximum interval of five years from the previous EPA Method test. Portable analyzer testing according to ASTM Methods D6522-00 and D6348-03, or other methods included in Table 2 to Subpart JJJJ of Part 60 are acceptable for intervening testing every 8,760 hours or 3 years.

The Owner/Operator shall perform formaldehyde emission tests upon each Caterpillar G3616LE compressor engine according to the requirements of 25 Pa. Code Chapter 139. EPA Method stack testing shall be conducted with a maximum interval of five years from the previous EPA Method test.

III. MONITORING REQUIREMENTS.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For Source IDs 109 and 110:

The Owner/Operator shall perform periodic monitoring for NOx and CO emissions from each Caterpillar G3616LE compressor engine at the Facility. Periodic monitoring shall be performed every 2,500 hours of operation and no sooner than 45 days from the previous test. A Department-approved test that has been performed within 45 days prior to the scheduled periodic monitoring may be used in lieu of the periodic monitoring for that time period. A portable gas analyzer may be used to satisfy the requirements of this condition utilizing three 20-minute test runs. The Department may alter the frequency of portable analyzer tests based on the test results. If NOx and CO emission results from the most recently conducted EPA Method stack tests are less than or equal to 75% of the NOx and CO emission limit, frequency of the periodic monitoring may be reduced to once annually. The portable gas analyzer shall be used and maintained according to the manufacturer's specifications and the procedures specified in ASTM D 6522 or equivalent as approved by the Department. The Department may also waive all or parts of this requirement if the Owner/Operator demonstrates compliance, in lieu of testing, through alternate means satisfactory to the Department. Periodic NOx and CO monitoring results shall be submitted to the Department within 30 days of completion.

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

These engines are affected sources under 40 CFR Part 63, Subpart ZZZZ-National Emission Standards for Hazardous Air





Pollutants for Stationary Reciprocating Internal Combustion Engines. However, under 40 CFR §63.6590(c) these sources are not subject to any of the requirements of Subpart ZZZZ provided they comply with the already applicable requirements of 40 CFR Part 60, Subpart JJJJ.

[For this permit condition only, source means a process unit, in conformance with 40 CFR §60.2.]

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines Am I subject to this subpart?

- (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
 - (1) (2) N/A.
- (3) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG, where the manufacturer participates in the voluntary manufacturer certification program described in this subpart and where the date of manufacture is:
- (i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
 - (ii) (iv) N/A.
 - (4) (5) N/A.
- (6) The provisions of §60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006.
- (b) (f) N/A.

The lean burn, SI, reciprocating, internal combustion engines comprising Source Group G01 (Source IDs 103, 107, 109, and 110) are affected sources under 40 CFR Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.]

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

- (a) (d) N/A.
- (e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) ... must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE....
- (f) (h) N/A.

[Table 1 to Subpart JJJJ of Part 60 - NOX, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines GTE 100 HP states:

"For" Engine type and fuel Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn GTE 500 HP and LT 1,350 HP) "with a" Maximum engine power HP GTE 500 "and" Manufacture date 7/1/2010 ", or after," emission standards "are:"

- 1.0 g NOX/HP-hr
- 2.0 g CO / HP-hr
- 0.7 g VOC / HP-hr





"And"

82 ppmvd NOX at 15% O2 270 ppmvd CO at 15% O2 60 ppmvd VOC at 15% O2

For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.]

[The engines in Source Group G01 are subject to the Table 1emission requirements stated above. Compliance with the hourly emission requirements from Table 1 is assured by compliance with the emission limits in Restriction #001, in Section D of this permit for each source that comprises Source Group G01.]

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4234]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

- (a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.
- (1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.
- (2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.
 - (i) (ii) N/A.
- (iii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.
- (b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.
- (1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.
 - (2) N/A.
- (c) (d) N/A.



(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

(f) -(i) N/A.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4244]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

- (a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.
- (b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.
- (c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
- (d) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 1 of this section:

$$ER = (Cd * 1.912 * (10^{(-3)}) * Q * T) / HP-hr (Eq. 1)$$

Where:

ER = Emission rate of NOX in g/HP-hr.

Cd = Measured NOX concentration in parts per million by volume (ppmv).

1.912 * (10^(-3)) = Conversion constant for ppm NOX to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = (Cd * 1.164 * (10^{(-3)}) * Q * T) / HP-hr (Eq. 2)$$

Where:

ER = Emission rate of CO in g/HP-hr.

Cd = Measured CO concentration in ppmv.

 $1.164 * (10^{-3}) = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.$

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:





 $ER = (Cd * 1.833 * (10^{(-3)}) * Q * T) / HP-hr (Eq. 3)$

Where:

ER = Emission rate of VOC in g/HP-hr.

Cd = VOC concentration measured as propane in ppmv.

 $1.833 * (10^{-3}) = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.$

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

RFi = CMi / CAi (Eq. 4)

Where:

RFi = Response factor of compound i when measured with EPA Method 25A.

CMi = Measured concentration of compound i in ppmv as carbon.

CAi = True concentration of compound i in ppmv as carbon.

Cicorr = RFi * Cimeas (Eq. 5)

Where:

Cicorr = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

Cimeas = Concentration of compound i measured by EPA Method 320, ppmv as carbon

CPeq = 0.6098 * Cicorr (Eq. 6)

Where:

CPeg = Concentration of compound i in mg of propane equivalent per DSCM.

[Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests states:

As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load:

For each: 1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244, complying with the requirement to:

- a. limit the concentration of NOX in the stationary SI internal combustion engine exhaust. You must:
- i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine; Using: (1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate.
- ii. Determine the O2 concentration of the stationary internal combustion engine exhaust at the sampling port location; Using (2) Method 3, 3A, or 3B (See Note b.) of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00. (Reapproved 2005, See Notes a and e.) According to the following requirements: (b) Measurements to determine O2 concentration must be



made at the same time as the measurements for NOX concentration.

- iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust; Using: (3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7.
- iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; Using: (4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03. (See Note e.) According to the following requirements: (c) Measurements to determine moisture must be made at the same time as the measurement for NOX concentration, and
- v. Measure NOX at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device. Using: (5) Method 7E of 40 CFR part 60, appendix A-4, ASTM Method D6522-00 (Reapproved 2005, See Notes a and e.), Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03. (See Note e.) According to the following requirements: (d) Results of this test consist of the average of the three 1-hour or longer runs.
 - b. limit the concentration of CO in the stationary SI internal combustion engine exhaust. You must:
- i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine; Using: (1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate.
- ii. Determine the O2 concentration of the stationary internal combustion engine exhaust at the sampling port location; Using: (2) Method 3, 3A, or 3B (See Note b.) of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00. (Reapproved 2005, See Notes a and e.) According to the following requirements: (b) Measurements to determine O2 concentration must be made at the same time as the measurements for CO concentration.
- iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust; Using: (3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7.
- iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; Using: (4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03. (See Note e.) According to the following requirements c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration, and
- v. Measure CO at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device. Using: (5) Method 10 of 40 CFR part 60, appendix A4, ASTM Method D6522-00 (Reapproved 2005, See Notes a and e.), Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03. (See Note e.) According to the following requirements: (d) Results of this test consist of the average of the three 1-hour or longer runs.
 - c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust. You must:
- i. Select the sampling port location and the number/location of traverse points at the exhaust of the stationary internal combustion engine; Using: (1) Method 1 or 1A of 40 CFR part 60, appendix A-1, if measuring flow rate.
- ii. Determine the O2 concentration of the stationary internal combustion engine exhaust at the sampling port location; Using: (2) Method 3, 3A, or 3B (See Note b.) of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00. (Reapproved 2005, See Notes a and e.) According to the following requirements: (b) Measurements to determine O2 concentration must be made at the same time as the measurements for VOC concentration.
- iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust Using: (3) Method 2 or 2C of 40 CFR part 60, appendix A-1 or Method 19 of 40 CFR part 60, appendix A-7.
- iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; Using: (4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (See Note e.) According to the following requirements: (c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration, and





v. Measure VOC at the exhaust of the stationary internal combustion engine; if using a control device, the sampling site must be located at the outlet of the control device. Using: (5) Methods 25A and 18 of 40 CFR part 60, appendices A-6 and A-7, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60, appendix A-6 (See Notes c and d.), Method 320 of 40 CFR part 63, appendix A, or ASTM Method D 6348-03 (See Note e.) According to the following requirements: (d) Results of this test consist of the average of the three 1-hour or longer runs.

Notes:

- a. Also, you may petition the Administrator for approval to use alternative methods for portable analyzer.
- b. You may use ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses, for measuring the O2 content of the exhaust gas as an alternative to EPA Method 3B. AMSE PTC 19.10-1981 incorporated by reference, see 40 CFR 60.17
- c. You may use EPA Method 18 of 40 CFR part 60, appendix A-6, provided that you conduct an adequate pre-survey test prior to the emissions test, such as the one described in OTM 11 on EPA's Web site (http://www.epa.gov/ttn/emc/prelim/otm11.pdf).
- d. You may use ASTM D6420-99 (2004), Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry as an alternative to EPA Method 18 for measuring total nonmethane organic. ASTM D6420-99(2004) incorporated by reference; see 40 CFR 60.17.
- e. Incorporated by reference; see 40 CFR 60.17.]
- # 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]
 Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

- (a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.
 - (1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
 - (2) Maintenance conducted on the engine.
- (3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- (4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.
- (b) (c) N/A.
- (d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.

(e) N/A.

013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4248] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

Certified stationary internal combustion engine means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90, 40 CFR part





1048, or 40 CFR part 1054, as appropriate.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Spark ignition means relating to either: a gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation.

Voluntary certification program means an optional engine certification program that manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to participate in to certify their engines to the emission standards in §60.4231(d) or (e), as applicable.





EQM GATHERING OPCO LLC/JUPITER COMP STA

SECTION E. **Source Group Restrictions.**

Group Name: G02

Group Description: TEG Dehydration Units 1, 2, and 3

Sources included in this group

30-00183

ID	Name
401	TEG DEHYDRATION UNIT 1
402	TEG DEHYDRATION UNIT 2
403	TEG DEHYDRATION UNIT 3

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

MONITORING REQUIREMENTS.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The TEG Dehydration Unit #3 enclosed ground flare shall be continuously monitored by a system that will shut down the unit if the flame in the flare is no longer present.

IV. RECORDKEEPING REQUIREMENTS.

[25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall maintain the following records for each of TEG Dehydration Units #1, #2, and #3.:

- 1. Monthly estimate of VOC emissions using GRI-GLYCalcTM computer software or an alternative method as approved by the Department.
- 2. A record of actual throughput per day and the glycol circulation rate.

[25 Pa. Code §127.441]

Operating permit terms and conditions.

Daily records shall be kept of the temperature and pressure of each of TEG Dehydration Units #1, #2, and #3.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

VII. ADDITIONAL REQUIREMENTS.

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.772]

Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities Test methods, compliance procedures, and compliance demonstrations.

Emissions from each of TEG Dehydration Units #1, #2, and #3 shall be calculated by the following procedure.

(b)(2) The determination of actual average benzene emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (b)(2)(i) or (b)(2)(ii) of this section. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

(i) The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalcTM, Version





3.0 or higher, and the procedures presented in the associated GRI-GLYCalcTM Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1); or

(ii) The owner or operator shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement using the methods in §63.772(a)(1)(i) or (ii), or an alternative method according to §63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.



SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this State Only facility.



SECTION G. Emission Restriction Summary.

No emission restrictions listed in this section of the permit.



SECTION H. Miscellaneous.

- 1. The capacities/throughputs listed in Section A and D, excluding those in permit restrictions, are for informational purposes only and are not enforceable limits.
- 2. The following description of the emission processes at the Jupiter Compressor Station is for information purposes only:

This State Only Operating Permit authorizes operation of the Jupiter Compressor Station in Morgan Township, Greene County. The following sources presently operating at this site are three (3) 2,370-bhp, natural gas-fired, 4 stroke, lean burn, Caterpillar/Ariel 3608 Compressor Engines, #1A, #2A, and #3, each controlled by an ADCAT oxidation catalyst, and two (2) 4,735 bhp @ 1,000 rpm, natural gas-fired, 4 stroke, lean burn, Caterpillar G3616LE Compressor Engines, #4 and #5, each controlled by a EMIT Technologies (or equivalent), ENH-9000H-3036F-80C4E-48 (or equivalent) oxidation catalyst and regulated by an ADEM A3 (or equivalent) automatic air/fuel ratio controller. The facility also contains two (2) Exterran, TEG dehydration units with 0.5 MMBtu/hr reboilers, both controlled by a single enclosed flare, one (1) Exterran, TEG dehydration unit with a 1.0 MMBtu/hr reboiler, controlled by an enclosed ground flare, heaters, one (1) Caterpillar G3412, 4-stroke, rich burn, 450 kw Emergency Generator Engine #1, two (2) natural gas-fired heaters each rated 0.13 MMBtu/hr, and pigging operations.

The facility also contains the following small emission sources:

- One (1) set of pressurized tanks
- Four (4) Capstone, C200, natural gas-fired micro turbines, 200kW (268 bhp, each); uncontrolled.
- One (1) produced fluids tank, 8,800 gallon capacity; uncontrolled.
- Five (5) miscellaneous storage tanks; containing new lube oil, new engine oil, new compressor oil, and new and used mono ethylene glycol; 2,000 gallon capacity each; uncontrolled.
 - One (1) miscellaneous storage tank, containing used oil, 100 bbl capacity; uncontrolled.

3. Changes to the SOOP:

This SOOP was Administratively Amended on August 21, 2014. The name of the Responsible Official was changed from Shawn Posey to Diana Charletta, Senior Vice President of Operations. The name of the Permit Contact on the SOOP was changed from Tom Hadden to Corey Giles, Senior Environmental Coordinator.

This permit was Administratively Amended, again, on January 11, 2016. The name of the owner/operator on the permit was transferred from EQT Gathering, LLC to EQM Gathering Optco, LLC.

Also, PA-30-00183C was issued on February 5, 2014 to authorize installation of the following equipment at the station:

- One (1) enclosed flare, 7.0 MMBtu/hr; controlling two (2) currently authorized triethylene glycol (TEG) dehydrators #1 and #2, 45 MMscfd each; equipped with flash tanks.
 - Four (4) Capstone, C200, natural gas-fired, micro turbines, 200kW (268 bhp, each); uncontrolled.
 - One (1) produced fluids tank, 8,800 gallon capacity; uncontrolled.
- Five (5) miscellaneous storage tanks; containing new lube oil, new engine oil, new compressor oil, and new and used mono ethylene glycol; 2,000 gallon capacity each; uncontrolled.
 - One (1) miscellaneous storage tank, containing used oil, 100 bbl capacity; uncontrolled.

Miscellaneous sources installed with this authorization also included the following:

- Four (4) Capstone, C200, natural gas-fired micro turbines, 200 kW (268 hp);
- One (1) produced fluids tank, 8,800 gallon capacity; uncontrolled;
- Five (5) miscellaneous storage tanks; containing new lube oil, new engine oil, new compressor oil, and new and used mono ethylene glycol; 2,000 gallon capacity each; uncontrolled;
 - One (1) miscellaneous storage tank, containing used oil, 100 bbl capacity; uncontrolled; and Misc. fugitive emission points.

Temporary operation of the compressor engines commenced November 18, 2014. The SOOP was amended again to incorporate the processes and requirements of PA-30-00183C. The Jupiter Compressor Station remains a minor source of air emissions after the addition of the equipment whose construction was authorized by the Plan Approval.



SECTION H. Miscellaneous.

30-00183

4. The renewal permit, issued June 24, 2022, revised the Responsible Official to be Jack Mackin, VP Operations and the Permit Contact Person to be Matthew Kraus, Environmental Engineer. It also incorporated Engine 102A (which was initially authorized to be constructed and operated at this facility on April 7, 2017, via GP5-30-00183A and re-authorized on March 29, 2022, via AG5-30-00024A). It also incorporated the two (2) 0.13 MMBtu/hr natural gas-fired heaters, which were exempt from plan approval. Additionally, the Pyle's Well Pad and its associated equipment were un-aggregated from the Jupiter Compressor Station due to the new corporate structures. The facility contains the following storage tanks:

ten miscellaneous tanks all rated less than 500 gal containing compressor oil, engine oil, and methanol,

two 8,820 gal produced fluids tanks,

one 4,200-gal waste oil tank,

one 2,000-gal ethylene glycol tank,

one 2,000-gal ethylene glycol tank,

one 2,000-gal lube oil tank,

one 2,000-gal lube oil tank,

one 2,000-gal lube oil tank,

one 2,000-gal ethylene glycol tank,

one 2,000-gal ethylene glycol tank,

one 2,000 gal triethylene glycol tank,

one 2,000-gal lube oil tank, and

one 4200-gal (100 barrel) waste oil tank.

As of June 23, 2022, this list of storage tanks is the most recent list and is intended to supersede the tank listings discussed above in this Miscellaneous Section of the permit.

5. PA DEP methodology for duration of observation and reduction of visual opacity data observed in accordance with EPA Method 9: The observer shall record observations in accordance with EPA Method 9 for minimum of 60 minutes. The data reduction methodology differs from EPA Method 9 in that it does not require a single continuous time interval and does not average datum of individual observations. Visual observations in accordance with Method 9 take place every 15 seconds and are recorded for this time interval. Since the observations of 20%, or greater, can be during multiple intervals, the number of high opacity observation readings are merely counted. For an emission limitation of opacity not to exceed 20% for a period aggregating more than three minutes in any 1 hour, a total of 13 observations greater than 20% would exceed this standard.

6. Other related permits: PA-30-00183C, GP5-30-00183A authorized on April 7, 2017, and AG5-30-00024A authorized March 29, 2022 (re-authorization of GP5-30-00183A).

DEP Auth ID: 1219524 D





***** End of Report *****