



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

TITLE V/STATE OPERATING PERMIT

Issue Date: October 5, 2017

Effective Date: October 5, 2017

Expiration Date: October 5, 2022

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 applicable requirements unless otherwise designated as "State-Only" or "non-applicable" requirements.

TITLE V Permit No: 30-00194

Federal Tax Id - Plant Code: 32-0422322-9

Owner Information

Name: EQM GATHERING OPCO LLC
Mailing Address: 625 LIBERTY AVE STE 1700
EQT PLAZA
PITTSBURGH, PA 15222-3114

Plant Information

Plant: EQM GATHERING OPCO LLC/CALLISTO COMP STA
Location: 30 Greene County 30919 Morris Township
SIC Code: 1311 Mining - Crude Petroleum And Natural Gas

Responsible Official

Name: DIANA M CHARLETTA
Title: SR VP OF OPERATIONS
Phone:

Permit Contact Person

Name: MARK A SOWA
Title: SR ENV COORDINATOR
Phone: (412) 395 - 3654

[Signature] _____
MARK R. GOROG, P.E., ENVIRONMENTAL PROGRAM MANAGER, SOUTHWEST REGION



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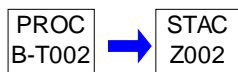
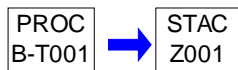
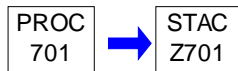
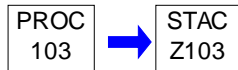
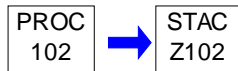
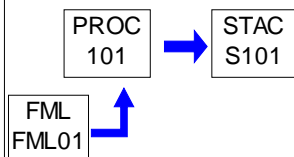
Section H. Miscellaneous

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
101	5 MICROTURBINE GENERATORS (268-BHP, EACH)		
102	CALLISTO BLOWDOWN & OPERATING FUGITIVES		
103	BROWNS CREEK FUGITIVES		
701	HARDEN WELL PAD FUGITIVES		
B-T001	BROWNS CREEK TANK #1 (210-GALLON BARREL CAPACITY)		
B-T002	BROWNS CREEK TANK #2 (50-GALLON BARREL CAPACITY)		
B-T003	BROWNS CREEK TANK #3 (210-GALLON BARREL CAPACITY)		
CC1	NATURAL GAS COMPRESSOR #1		
CC2	NATURAL GAS COMPRESSOR #2		
CC3	NATURAL GAS COMPRESSOR #3		
CC4	NATURAL GAS COMPRESSOR #4		
CC5	NATURAL GAS COMPRESSOR #5		
CE1	CATERPILLAR G3616 LE ENGINE #1 (4,735-BHP, 4SLB)		
CE2	CATERPILLAR G3616 LE ENGINE #2 (4,735-BHP, 4SLB)		
CE3	CATERPILLAR G3616 LE ENGINE #3 (4,735-BHP, 4SLB)		
CE4	CATERPILLAR G3616 LE ENGINE #4 (4.735-BHP, 4SLB)		
CE5	CATERPILLAR G3616 LE ENGINE #5 (4,735-BHP, 4SLB)		
H-T001	HARDEN WELL PAD TANK #1 (210-GALLON BARREL CAPACITY)		
H-T002	HARDEN WELL PAD TANK #2 (210-GALLON BARREL CAPACITY)		
TEG001	TEG DEHYDRATOR #1 (120-MMSCF/D)		
TEG002	TEG DEHYDRATOR #2 (120-MMSCF/D)		
TEG003	TEG DEHYDRATOR #3 (120-MMSCF/D)		
TEG004	BROWNS CREEK DEHYDRATOR #1 (4-MMSCF/D)		
CD1	MIRATECH CATALYTIC CONVERTER (#1)		
CD2	MIRATECH CATALYTIC CONVERTER (#2)		
CD3	MIRATECH CATALYTIC CONVERTER (#3)		
CD4	EMIT TECHNOLOGIES CATALYTIC CONVERTER (#4)		
CD5	EMIT TECHNOLOGIES CATALYTIC CONVERTER (#5)		
DGF1	DEHY GROUND FLARE #1		
DGF2	DEHY GROUND FLARE #2		
DGF3	DEHY GROUND FLARE #3		
DGF4	BROWNS CREEK DEHYDRATOR FLARE		
FML01	NATURAL GAS LINE		
S101	MICROTURBINE GENERATORS STACK		
SCE1	COMPRESSOR ENGINE #1 STACK		
SCE2	COMPRESSOR ENGINE #2 STACK		

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
SCE3	COMPRESSOR ENGINE #3 STACK		
SCE4	COMPRESSOR ENGINE #4 STACK		
SCE5	COMPRESSOR ENGINE #5 STACK		
STEG1	DEHYDRATOR 1 STACK		
STEG2	DEHYDRATOR 2 STACK		
STEG3	DEHYDRATOR 3 STACK		
STEG4	DEHYDRATOR 4 STACK		
Z001	BROWNS CREEK TANK 1 FUGITIVES		
Z002	BROWNS CREEK TANK 2 FUGITIVES		
Z003	BROWNS CREEK TANK 3 FUGITIVES		
Z102	CALLISTO VENTING & FUGITIVES		
Z103	BROWNS CREEK FUGITIVES		
Z701	HARDEN FUGITIVES		
ZCC1	NG COMPRESSOR #1 VENT		
ZCC2	NG COMPRESSOR #2 VENT		
ZCC3	NG COMPRESSOR #3 VENT		
ZCC4	NG COMPRESSOR #4 VENT		
ZCC5	NG COMPRESSOR #5 VENT		
ZH01	HARDEN TANK 1 FUGITIVES		
ZH02	HARDEN TANK 2 FUGITIVES		

PERMIT MAPS

PERMIT MAPS

PROC
B-T003 → STAC
Z003

PROC
CC1 → STAC
ZCC1

PROC
CC2 → STAC
ZCC2

PROC
CC3 → STAC
ZCC3

PROC
CC4 → STAC
ZCC4

PROC
CC5 → STAC
ZCC5

PROC
CE1 → CNTL
CD1 → STAC
SCE1
FML
FML01 →

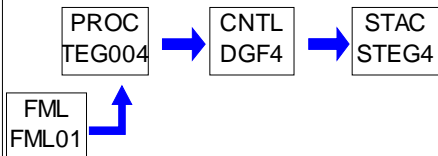
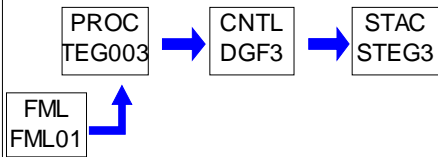
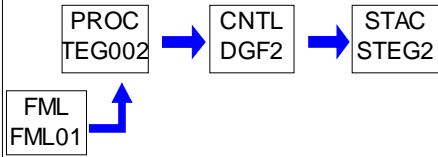
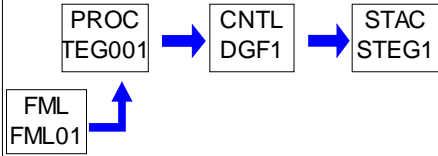
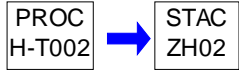
PROC
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CD2 → STAC
SCE2
FML
FML01 →

PROC
CE3 → CNTL
CD3 → STAC
SCE3
FML
FML01 →

PROC
CE4 → CNTL
CD4 → STAC
SCE4
FML
FML01 →

PROC
CE5 → CNTL
CD5 → STAC
SCE5
FML
FML01 →

PROC
H-T001 → STAC
ZH01

PERMIT MAPS

**SECTION B. General Title V Requirements****#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 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 121.7]**Prohibition of Air Pollution**

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

#003 [25 Pa. Code § 127.512(c)(4)]**Property Rights**

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

#004 [25 Pa. Code § 127.446(a) and (c)]**Permit Expiration**

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. The terms and conditions of the expired permit shall automatically continue pending issuance of a new Title V 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. 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.

#005 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446(e) & 127.503]**Permit Renewal**

(a) An application for the renewal of the Title V permit shall be submitted to the Department at least six (6) months, and not more than 18 months, before the expiration date of this permit. The renewal application is timely if a complete application is submitted to the Department's Regional Air Manager within the timeframe specified in this permit condition.

(b) The application for permit renewal shall include the current permit number, the appropriate permit renewal fee, a description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

(c) 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. The application for renewal of the Title V permit shall also include submission of compliance review forms which have been used by the permittee to update information submitted in accordance with either 25 Pa. Code § 127.412(b) or § 127.412(j).

(d) 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 during the permit renewal process. The permittee shall also promptly provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

#006 [25 Pa. Code §§ 127.450(a)(4) & 127.464(a)]**Transfer of Ownership or Operational Control**

(a) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership or operational control of the source shall be treated as an administrative amendment if:

(1) The Department determines that no other change in the permit is necessary;

(2) 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,

(3) A compliance review form has been submitted to the Department and the permit transfer has been approved by the Department.

**SECTION B. General Title V Requirements**

(b) In accordance with 25 Pa. Code § 127.464(a), this permit may not be transferred to another person except in cases of transfer-of-ownership which are documented and approved to the satisfaction of the Department.

#007 [25 Pa. Code § 127.513, 35 P.S. § 4008 and § 114 of the CAA]**Inspection and Entry**

(a) Upon presentation of credentials and other documents as may be required by law for inspection and entry purposes, the permittee shall allow the Department of Environmental Protection or authorized representatives of the Department to perform the following:

- (1) Enter at reasonable times upon the permittee's premises where a Title V 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 or remove, at reasonable times, records that are kept under the conditions of this permit;
- (3) Inspect at reasonable times, 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, 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.

(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.

#008 [25 Pa. Code §§ 127.25, 127.444, & 127.512(c)(1)]**Compliance Requirements**

(a) The permittee shall comply with the conditions of this permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one (1) 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 to the source are 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 Title V permit.

#009 [25 Pa. Code § 127.512(c)(2)]**Need to Halt or Reduce Activity Not a Defense**

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

#010 [25 Pa. Code §§ 127.411(d) & 127.512(c)(5)]**Duty to Provide Information**

(a) The permittee shall furnish to the Department, within a reasonable time, information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or

**SECTION B. General Title V Requirements**

to determine compliance with the permit.

(b) Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator of EPA along with a claim of confidentiality.

#011 [25 Pa. Code §§ 127.463, 127.512(c)(3) & 127.542]**Reopening and Revising the Title V Permit for Cause**

(a) This Title V permit may be modified, revoked, reopened and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay a permit condition.

(b) This permit may be reopened, revised and reissued prior to expiration of the permit under one or more of the following circumstances:

(1) Additional applicable requirements under the Clean Air Act or the Air Pollution Control Act become applicable to a Title V facility with a remaining permit term of three (3) or more years prior to the expiration date of this permit. The Department will revise the permit as expeditiously as practicable but not later than 18 months after promulgation of the applicable standards or regulations. No such revision is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or its terms and conditions has been extended.

(2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator of EPA, excess emissions offset plans for an affected source shall be incorporated into the permit.

(3) The Department or the EPA determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

(4) The Department or the Administrator of EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(c) Proceedings to revise this permit shall follow the same procedures which apply to initial permit issuance and shall affect only those parts of this permit for which cause to revise exists. The revision shall be made as expeditiously as practicable.

(d) Regardless of whether a revision is made in accordance with (b)(1) above, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations.

#012 [25 Pa. Code § 127.543]**Reopening a Title V Permit for Cause by EPA**

As required by the Clean Air Act and regulations adopted thereunder, this permit may be modified, reopened and reissued, revoked or terminated for cause by EPA in accordance with procedures specified in 25 Pa. Code § 127.543.

#013 [25 Pa. Code § 127.522(a)]**Operating Permit Application Review by the EPA**

The applicant may be required by the Department to provide a copy of the permit application, including the compliance plan, directly to the Administrator of the EPA. Copies of title V permit applications to EPA, pursuant to 25 PA Code §127.522(a), shall be submitted, if required, to the following EPA e-mail box:

R3_Air_Apps_and_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

#014 [25 Pa. Code § 127.541]**Significant Operating Permit Modifications**

When permit modifications during the term of this permit do not qualify as minor permit modifications or administrative amendments, the permittee shall submit an application for significant Title V permit modifications in accordance with

**SECTION B. General Title V Requirements**

25 Pa. Code § 127.541. Notifications to EPA, pursuant to 25 PA Code §127.522(a), if required, shall be submitted, to the following EPA e-mail box:

R3_Air_Apps_and_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

#015 [25 Pa. Code §§ 121.1 & 127.462]**Minor Operating Permit Modifications**

The permittee may make minor operating permit modifications (as defined in 25 Pa. Code §121.1), on an expedited basis, in accordance with 25 Pa. Code §127.462 (relating to minor operating permit modifications). Notifications to EPA, pursuant to 25 PA Code §127.462(c), if required, shall be submitted, to the following EPA e-mail box:

R3_Air_Apps_and_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

#016 [25 Pa. Code § 127.450]**Administrative Operating Permit Amendments**

(a) The permittee may request administrative operating permit amendments, as defined in 25 Pa. Code §127.450(a). Copies of request for administrative permit amendment to EPA, pursuant to 25 PA Code §127.450(c)(1), if required, shall be submitted to the following EPA e-mail box:

R3_Air_Apps_and_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

(b) Upon final action by the Department granting a request for an administrative operating permit amendment covered under §127.450(a)(5), the permit shield provisions in 25 Pa. Code § 127.516 (relating to permit shield) shall apply to administrative permit amendments incorporated in this Title V Permit in accordance with §127.450(c), unless precluded by the Clean Air Act or the regulations thereunder.

#017 [25 Pa. Code § 127.512(b)]**Severability Clause**

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

#018 [25 Pa. Code §§ 127.704, 127.705 & 127.707]**Fee Payment**

(a) The permittee shall pay fees to the Department in accordance with the applicable fee schedules in 25 Pa. Code Chapter 127, Subchapter I (relating to plan approval and operating permit fees).

(b) Emission Fees. The permittee shall, on or before September 1st of each year, pay applicable annual Title V emission fees for emissions occurring in the previous calendar year as specified in 25 Pa. Code § 127.705. The permittee is not required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant emitted from the facility.

(c) As used in this permit condition, the term "regulated pollutant" is defined as a VOC, each pollutant regulated under Sections 111 and 112 of the Clean Air Act and each pollutant for which a National Ambient Air Quality Standard has been promulgated, except that carbon monoxide is excluded.

(d) Late Payment. Late payment of emission fees will subject the permittee to the penalties prescribed in 25 Pa. Code § 127.707 and may result in the suspension or termination of the Title V permit. The permittee shall pay a penalty of fifty percent (50%) of the fee amount, plus interest on the fee amount computed in accordance with 26 U.S.C.A. § 6621(a)(2) from the date the emission fee should have been paid in accordance with the time frame specified in 25 Pa. Code § 127.705(c).

**SECTION B. General Title V Requirements**

(e) The permittee shall pay an annual operating permit administration fee according to the fee schedule established in 25 Pa. Code § 127.704(c) if the facility, identified in Subparagraph (iv) of the definition of the term "Title V facility" in 25 Pa. Code § 121.1, is subject to Title V after the EPA Administrator completes a rulemaking requiring regulation of those sources under Title V of the Clean Air Act.

(f) This permit condition does not apply to a Title V facility which qualifies for exemption from emission fees under 35 P.S. § 4006.3(f).

#019 [25 Pa. Code §§ 127.14(b) & 127.449]**Authorization for De Minimis Emission Increases**

(a) This permit authorizes de minimis emission increases from a new or existing source in accordance with 25 Pa. Code §§ 127.14 and 127.449 without the need for a plan approval or prior issuance of a permit modification. The permittee shall provide the Department with seven (7) days prior written notice before commencing any de minimis emissions increase that would result from either: (1) a physical change of minor significance under § 127.14(c)(1); or (2) the construction, installation, modification or reactivation of an air contamination source. 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.

The Department may disapprove or condition de minimis emission increases at any time.

(b) Except as provided below in (c) and (d) of this permit condition, the permittee is authorized during the term of this permit 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 NO_x from a single source during the term of the permit and 5 tons of NO_x 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 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 or 25 Pa. Code Article III.

(c) In accordance with § 127.14, the permittee may install the following minor sources without the need for a plan approval:

- (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, liquefied petroleum gas 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.

**SECTION B. General Title V Requirements**

(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.

(d) 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 (b)(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 the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.

(4) Changes which are modifications under any provision of Title I of the Clean Air Act and emission increases which would exceed the allowable emissions level (expressed as a rate of emissions or in terms of total emissions) under the Title V permit.

(e) Unless precluded by the Clean Air Act or the regulations thereunder, the permit shield described in 25 Pa. Code § 127.516 (relating to permit shield) shall extend to the changes made under 25 Pa. Code § 127.449 (relating to de minimis emission increases).

(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 allowed under this permit, 25 Pa. Code § 127.449, or sources and physical changes meeting the requirements of 25 Pa. Code § 127.14, the permittee is prohibited from making physical 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.

#020 [25 Pa. Code §§ 127.11a & 127.215]**Reactivation of Sources**

(a) The permittee may reactivate a source at the facility that has been out of operation or production for at least one year, but less than or equal to five (5) years, if the source is reactivated in accordance with the requirements of 25 Pa. Code §§ 127.11a and 127.215. The reactivated source will not be considered a new source.

(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).

#021 [25 Pa. Code §§ 121.9 & 127.216]**Circumvention**

(a) The owner of this Title V facility, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.

(b) 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 this permit, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department,

**SECTION B. General Title V Requirements**

the device or technique may be used for control of malodors.

#022 [25 Pa. Code §§ 127.402(d) & 127.513(1)]**Submissions**

(a) 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 on the permit transmittal letter,
or otherwise notified)

(b) Any report or notification for the EPA Administrator or EPA Region III should be addressed to:

Office of Air Enforcement and Compliance Assistance (3AP20)
United States Environmental Protection Agency
Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

(c) An application, form, report or compliance certification submitted pursuant to this permit condition shall contain certification by a responsible official as to truth, accuracy, and completeness as required under 25 Pa. Code § 127.402(d). Unless otherwise required by the Clean Air Act or regulations adopted thereunder, this certification and any other certification required pursuant to this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

#023 [25 Pa. Code §§ 127.441(c) & 127.463(e); Chapter 139; & 114(a)(3), 504(b) of the CAA]**Sampling, Testing and Monitoring Procedures**

(a) The permittee shall perform the emissions monitoring and analysis procedures or test methods for applicable requirements of this Title V permit. In addition to the sampling, testing and monitoring procedures specified in this permit, the Permittee shall comply with any additional applicable requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) The sampling, testing and monitoring required under the applicable requirements of this permit, shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139 unless alternative methodology is required by the Clean Air Act (including §§ 114(a)(3) and 504(b)) and regulations adopted thereunder.

#024 [25 Pa. Code §§ 127.511 & Chapter 135]**Recordkeeping Requirements**

(a) The permittee shall maintain and make available, upon request by the Department, records of required monitoring information that include the following:

- (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 the 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.

**SECTION B. General Title V Requirements**

(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. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

#025 [25 Pa. Code §§ 127.411(d), 127.442, 127.463(e) & 127.511(c)]**Reporting Requirements**

(a) The permittee shall comply with the reporting requirements for the applicable requirements specified in this Title V permit. In addition to the reporting requirements specified herein, the permittee shall comply with any additional applicable reporting requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) Pursuant to 25 Pa. Code § 127.511(c), the permittee shall submit reports of required monitoring at least every six (6) months unless otherwise specified in this permit. Instances of deviations (as defined in 25 Pa. Code § 121.1) from permit requirements shall be clearly identified in the reports. The reporting of deviations shall include the probable cause of the deviations and corrective actions or preventative measures taken, except that sources with continuous emission monitoring systems shall report according to the protocol established and approved by the Department for the source. The required reports shall be certified by a responsible official.

(c) Every report submitted to the Department under this permit condition shall comply with the submission procedures specified in Section B, Condition #022(c) of this permit.

(d) Any records, reports or information obtained by the Department or referred to in a public hearing shall be made available to the public by the Department except for such records, reports or information for which the permittee has shown cause that the documents should be considered confidential and protected from disclosure to the public under Section 4013.2 of the Air Pollution Control Act and consistent with Sections 112(d) and 114(c) of the Clean Air Act and 25 Pa. Code § 127.411(d). The permittee may not request a claim of confidentiality for any emissions data generated for the Title V facility.

#026 [25 Pa. Code § 127.513]**Compliance Certification**

(a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III a certificate of compliance with the terms and conditions in this permit, for the previous year, including the emission limitations, standards or work practices. This certification shall include:

- (1) The identification of each term or condition of the permit that is the basis of the certification.
- (2) The compliance status.
- (3) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (4) Whether compliance was continuous or intermittent.

(b) The compliance certification shall be postmarked or hand-delivered no later than thirty days after each anniversary of the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department and EPA in accordance with the submission requirements specified in condition #022 of this section.

#027 [25 Pa. Code § 127.3]**Operational Flexibility**

The permittee is authorized to make changes within the Title V facility in accordance with the following provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements of Section 502(b)(10) of the Clean Air Act and Section 6.1(i) of the Air Pollution Control Act:

- (1) Section 127.14 (relating to exemptions)

**SECTION B. General Title V Requirements**

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

#028 [25 Pa. Code §§ 127.441(d), 127.512(i) and 40 CFR Part 68]**Risk Management**

- (a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).
- (b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the Title V facility. The permittee shall submit the RMP to the federal Environmental Protection Agency according to the following schedule and requirements:
- (1) The permittee shall submit the first RMP to a central point specified by EPA no later than the latest of the following:
 - (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
 - (ii) The date on which a regulated substance is first present above a threshold quantity in a process.
 - (2) The permittee shall submit any additional relevant information requested by the Department or EPA concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.
 - (3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.
- (c) As used in this permit condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.
- (d) If the Title V facility is subject to 40 CFR Part 68, as part of the certification required under this permit, the permittee shall:
- (1) Submit a compliance schedule for satisfying the requirements of 40 CFR Part 68 by the date specified in 40 CFR § 68.10(a); or,
 - (2) Certify that the Title V facility is in compliance with all requirements of 40 CFR Part 68 including the registration and submission of the RMP.
- (e) If the Title V facility is subject to 40 CFR Part 68, the permittee shall maintain records supporting the implementation of an accidental release program for five (5) years in accordance with 40 CFR § 68.200.
- (f) When the Title V facility is subject to the accidental release program requirements of Section 112(r) of the Clean Air Act and 40 CFR Part 68, appropriate enforcement action will be taken by the Department if:
- (1) The permittee fails to register and submit the RMP or a revised plan pursuant to 40 CFR Part 68.

**SECTION B. General Title V Requirements**

(2) The permittee fails to submit a compliance schedule or include a statement in the compliance certification required under Condition #26 of Section B of this Title V permit that the Title V facility is in compliance with the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68, and 25 Pa. Code § 127.512(i).

#029 [25 Pa. Code § 127.512(e)]**Approved Economic Incentives and Emission Trading Programs**

No permit revision shall be required under approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Title V permit.

#030 [25 Pa. Code §§ 127.516, 127.450(d), 127.449(f) & 127.462(g)]**Permit Shield**

(a) The permittee's compliance with the conditions of this permit shall be deemed in compliance with applicable requirements (as defined in 25 Pa. Code § 121.1) as of the date of permit issuance if either of the following applies:

- (1) The applicable requirements are included and are specifically identified in this permit.
- (2) The Department specifically identifies in the permit other requirements that are not applicable to the permitted facility or source.

(b) Nothing in 25 Pa. Code § 127.516 or the Title V permit shall alter or affect the following:

- (1) The provisions of Section 303 of the Clean Air Act, including the authority of the Administrator of the EPA provided thereunder.
- (2) The liability of the permittee for a violation of an applicable requirement prior to the time of permit issuance.
- (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act.
- (4) The ability of the EPA to obtain information from the permittee under Section 114 of the Clean Air Act.

(c) Unless precluded by the Clean Air Act or regulations thereunder, final action by the Department incorporating a significant permit modification in this Title V Permit shall be covered by the permit shield at the time that the permit containing the significant modification is issued.

**SECTION C. Site Level Requirements****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) – (8) N/A.
- (9) Sources and classes of sources other than those identified in paragraphs (1)-(5), 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) N/A.
- (c) Contained under WORK PRACTICE REQUIREMENTS in this section of the permit.
- (d) N/A.

003 [25 Pa. Code §123.13]**Processes**

Particulate matter emissions into the outdoor atmosphere from any process shall not exceed 0.04 gr/dscf as specified in 25 Pa. Code § 123.13(c)(1)(i).

004 [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 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 person's property.

005 [25 Pa. Code §123.21]**General**

- (a) N/A.
- (b) No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**SECTION C. Site Level Requirements****# 006 [25 Pa. Code §123.31]****Limitations**

(a) Limitations are as follows:

(1) - (2) N/A.

(b) 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.

(c) N/A.

007 [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.

008 [25 Pa. Code §129.14]**Open burning operations**

(a) AIR BASINS. N/A.

(b) 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.

(c) 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) Any 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 the structure.

(6) A fire set solely for recreational or ceremonial purposes.

**SECTION C. Site Level Requirements**

(7) A fire set solely for cooking food.

(d) 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).

(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 that chapter.

[The Callisto Compression Station is not located in an air basin.]

II. TESTING REQUIREMENTS.**# 009 [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 sources listed in this Permit may be in excess of the limitations specified in, or established pursuant to the permittee's operating permit, the permittee may be required to conduct test methods and procedures deemed necessary by the Department to determine the actual emissions rate. Such testing shall be conducted in accordance with Title 25 PA Code Chapter 139, where applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the company that testing is required.

010 [25 Pa. Code §139.51]**Purpose.**

**SECTION C. Site Level Requirements**

(a) Pursuant to 25 Pa. Code § 139.3 to at least 45 calendar days prior to commencing an emissions testing program, a test protocol shall be submitted to the Department for review and approval. 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 appropriate 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) Pursuant to 25 Pa. Code Section 139.53(a)(3) within 15 calendar days after completion of the on-site testing portion of an emission test program, if a complete test report has not yet been submitted, an electronic mail notification shall be sent to the Department's Division of Source Testing and Monitoring indicating the completion date of the on-site testing.

(d) Pursuant to 40 CFR Part 60.8(a), 40 CFR Part 61.13(f) and 40 CFR Part 63.7(g) a 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 emission test program. For those tests being conducted pursuant to 40 CFR Part 61, the complete test report shall be submitted within 31 days after completion of the test

(e) Pursuant to 25 Pa. Code Section 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 non-compliance 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.

(f) Pursuant to 25 Pa. Code § 139.3 to all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

(g) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

(h) Pursuant to 25 Pa. Code Section 139.53(a)(1) and 139.53(a)(3) all submittals, besides notifications, shall be accomplished through PSIMS*Online available through <https://www.depgreenport.state.pa.us/ecomm/Login.jsp>. If internet submittal cannot be accomplished, three copies of the submittal shall be sent to the Pennsylvania Department of Environmental Protection, Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor Rachael Carson State Office Building, Harrisburg, PA 17105-8468 with deadlines verified through document postmarks.

(i) 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.

III. MONITORING REQUIREMENTS.

011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Operators of Callisto Compression Station shall observe and record the following:

1. Visible stack emissions

**SECTION C. Site Level Requirements**

2. Malodors
3. Visible fugitive emissions

Of the plant, at least once per day, only on days when the facility is manned. However, when any processes are operating at this facility, inspections shall take place at a minimum of once per week. This observation does not require that it be performed by a person certified as a qualified observer for EPA Method 9 for Visual Determination of the Opacity of Emissions from Stationary Sources.

Should visible stack emissions, malodors, or visible fugitive emissions be observed, the permittee shall take immediate action to correct them.

IV. RECORDKEEPING REQUIREMENTS.**# 012 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall maintain records of all visible stack, fugitive emission, and malodor surveys performed. The records shall include the date, time, name and title of the observer, whether emissions or malodors were observed, and any corrective action.

013 [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.

014 [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 piece of equipment operated, including engines and dehydrators.
- b. The amount of fuel used per month by each piece of equipment, including engines and dehydrators.
- c. Records including a description of testing methods, results, all operating data collected during tests, and a copy of the calculations performed.
- d. Copies of the manufacturer's recommended maintenance schedule for the G3616LE engines, catalysts, TEG dehydrators, enclosed ground flares, and other equipment.
- e. Records of any maintenance conducted on the G3616LE engines, catalysts, TEG dehydrators, enclosed ground flares, and other equipment.
- f. Records of a fractional gas analysis performed at least once every three months on the inlet natural gas to the facility.
- g. Records of any leak detected and associated repair activity through the leak detection and repair or maintenance program.
- h. Additional records required for the natural gas-fired compressor engines:
 1. 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 emission performance testing.
 2. Records of catalyst temperature readings (For Compressor Engines #1, #2, and #3 (CE1, CE2, and CE3), catalyst inlet, only. For Compressor Engines #4 and #5 (CE4 and CE5), catalyst inlet and outlet) performed once each month, on each G3616LE engine operated during the month.

**SECTION C. Site Level Requirements**

3. For the natural gas-fired compressor engines, records shall also be kept of catalyst temperature measurements (For Compressor Engines #1, #2, and #3 (CE1, CE2, and CE3), catalyst inlet, only. For Compressor Engines #4 and #5 (CE4 and CE5), catalyst inlet and outlet) performed once during each test run.) taken during testing.

i. Additional records required for the TEG dehydrators:

1. The dehydrator VOC and benzene emissions according to the methods prescribed in 40 CFR Part 63 Subpart HH using the average of the quarterly gas analyses from no less recent than the previous year if the natural gas composition has changed or an alternative method as approved by the Department.

2. Records of actual throughput per day and the glycol circulation rate for the dehydrator.

j. Additional records required for the flares:

1. On a daily basis when the station is manned, but also at a minimum of frequency of at least one per week, view each of the flares to confirm the continuous presence of the pilot flame. The result of this observation shall be recorded.

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 informed by indirect means.

V. REPORTING REQUIREMENTS.**# 016 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Malfunction reporting shall be conducted as follows:

a. For the purpose of this condition, a malfunction is defined as any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment or source to operate in a normal or usual manner that may result in an increase in the emission of air contaminants. Examples of malfunctions may include, but are not limited to: large dust plumes, heavy smoke, a spill or release that results in a malodor that is detectable outside the property on whose land the source is being operated.

b. When the malfunction poses an imminent and substantial danger to the public health and safety, potential harm to the environment, the Owner/Operator shall report the incident to the Department within one hour. The Owner/Operator shall also notify the Department immediately, when corrective measures have been accomplished.

All other malfunctions shall be reported to the Department no later than the next business day.

c. Initial reporting of the malfunction shall identify the following items to the extent known:

- i. name and location of the facility;
- ii. nature and cause of the malfunction;
- iii. time when the malfunction or breakdown was first observed;
- iv. expected duration of increased emissions; and
- v. estimated rate of emissions.

d. Malfunctions shall be reported to the Department at:

**SECTION C. Site Level Requirements**

PA DEP
Office of Air Quality
400 Waterfront Drive
Pittsburgh, PA 15222-4745

412-442-4000

e. If requested by the Department, the Owner/Operator shall submit a full written report to the Department including final determinations of the items identified in c. and the corrective measures taken on the malfunction. The report shall be submitted within 15 days of the Department's request or accomplishing corrective measures, whichever is later.

017 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

Owner/operator shall submit the semi-annual monitoring reports for this facility by January 30 and July 30 of each year. The January 30 semi-annual monitoring report shall cover the period from July 1 through December 31. The July 30 semiannual monitoring report shall cover the period from January 1 through June 30. However, in accordance with Title 25 PA Code § 127.511(c), in no case shall the semi-annual monitoring report be submitted less often than every six (6) months. This may require that an interim semi-annual monitoring report (covering a period less than six (6) months) be submitted to bring the facility into compliance with this schedule.

018 [25 Pa. Code §127.513]**Compliance certification.**

Permittee shall submit a Compliance Certification sufficient to demonstrate compliance with terms and conditions contained in the permit. Each Compliance Certification shall include the following:

- (a) The identification of each term or condition of the permit that is the basis of the certification.
- (b) The compliance status.
- (c) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (d) Whether compliance was continuous or intermittent.
- (e) Other facts the Department may require to determine the compliance status of the source.

[Owner/operator shall submit a Title V Compliance Certification for this facility by January 30 of each year. The Title V Compliance Certification shall cover the previous calendar year, for the period January 1 through December 31. This Certification shall be submitted to both the Director, Air, Toxics, and Radiation of EPA, Region III and the Regional Air Quality Program Manager, PA DEP. The Title V Compliance Certification may be emailed to EPA Region III at R3_APD_Permits@epa.gov in lieu of mailing a hard copy. However, in accordance with Title 25 PA Code § 127.513(5)(i), in no case shall the Title V Compliance Certification be submitted less often than annually. This may require that an interim Title V Compliance Certification (covering a period less than one year) be submitted to bring the facility into compliance with this schedule.]

019 [25 Pa. Code §135.21]**Emission statements**

The owner or operator of each stationary source emitting oxides of nitrogen and/or VOCs 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 oxides of nitrogen and VOCs 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. The statement shall contain a certification by a company officer or the plant manager that the information contained in the statement is accurate.

020 [25 Pa. Code §135.3]**Reporting**

(a) A person who owns or operates a source to which this chapter applies, and who has previously been advised by the Department to submit a source report, shall submit by March 1 of each year a source report for the preceding calendar year.

SECTION C. Site Level Requirements

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 person who receives initial notification by the Department that a source report is necessary shall submit an initial source report with 60 days after receiving the notification or by March 1 of the year following the year for which the report is required, whichever is later.

(c) N/A.

[The Callisto Compression Station is a Title V source and the operators of the station are required to submit an annual air emission inventory.

The source report in (a) shall include a statement; in a form as the Department may prescribe; for classes or categories of sources; showing the actual emissions of individual criteria and hazardous air pollutants and greenhouse gas emissions, as well as other air contaminants. (Per the Department's Emissions Inventory Reporting Instructions.) 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.

Additional authority for this condition is taken from § 135.21.]

VI. WORK PRACTICE REQUIREMENTS.**# 021 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee shall take all reasonable actions to prevent particulate matter from a source identified in 25 PA Code 123.1(a)(1)-(9) from becoming airborne. These actions shall include, but not be limited to, the following:

(c)(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.

022 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

All units shall be operated and maintained in accordance with manufacturer's specification and good air pollution and engineering practices.

VII. ADDITIONAL REQUIREMENTS.**# 023 [25 Pa. Code §123.42]****Exceptions**

Limitations of opacity 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.

(3) When the emission results from sources specified in § 123.1 (a)(1)-(9) (relating to prohibition of certain fugitive

**SECTION C. Site Level Requirements**

emissions).

(4) N/A.

024 [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 devices approved by the Department.

025 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Mass emissions may be determined using engineering calculations based on fuel and raw material purchase records, manufacturers specifications, AP-42 emission factors, source test results, operating records, material balance methods, and/or other applicable methods with written Departmental approval.

026 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Sources at the facility are 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 for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015 and 40 CFR Part 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities and 25 Pa. Code Chapters 121-145. (Air Resources)

Owner/operator shall comply with all applicable notification and reporting requirements contained in 40 CFR 60, Subparts A, JJJJ, and OOOO and 40 CFR 63, Subparts A and HH. All submittals shall be sent to both USEPA Region III and PADEP at the following addresses:

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.

027 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Emission sources at the Callisto Compressor Station remain subject to all of the continuing requirements of PA-30-00194A and PA-30-00194B.

028 [25 Pa. Code §135.4]**Report format**

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

VIII. COMPLIANCE CERTIFICATION.

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

IX. COMPLIANCE SCHEDULE.



SECTION C. Site Level Requirements

No compliance milestones exist.

***** Permit Shield In Effect *****

SECTION D. Source Level Requirements

Source ID: 101

Source Name: 5 MICROTURBINE GENERATORS (268-BHP, EACH)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG06

**I. RESTRICTIONS.**

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

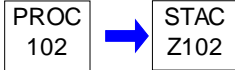
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 102

Source Name: CALLISTO BLOWDOWN & OPERATING FUGITIVES

Source Capacity/Throughput:

**I. RESTRICTIONS.**

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

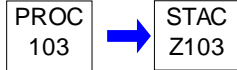
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: 103

Source Name: BROWNS CREEK FUGITIVES

Source Capacity/Throughput:

**I. RESTRICTIONS.**

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

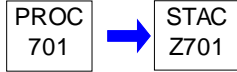
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 701

Source Name: HARDEN WELL PAD FUGITIVES

Source Capacity/Throughput:

**I. RESTRICTIONS.**

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

***** Permit Shield in Effect. *****

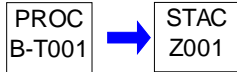
SECTION D. Source Level Requirements

Source ID: B-T001

Source Name: BROWNS CREEK TANK #1 (210-GALLON BARREL CAPACITY)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG07

**I. RESTRICTIONS.**

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

***** Permit Shield in Effect. *****

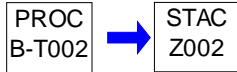
SECTION D. Source Level Requirements

Source ID: B-T002

Source Name: BROWNS CREEK TANK #2 (50-GALLON BARREL CAPACITY)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG07

**I. RESTRICTIONS.**

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

***** Permit Shield in Effect. *****

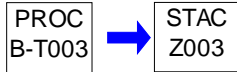
**SECTION D. Source Level Requirements**

Source ID: B-T003

Source Name: BROWNS CREEK TANK #3 (210-GALLON BARREL CAPACITY)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG07

**I. RESTRICTIONS.**

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

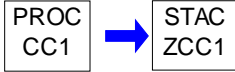
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: CC1

Source Name: NATURAL GAS COMPRESSOR #1

Source Capacity/Throughput:

**I. RESTRICTIONS.**

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

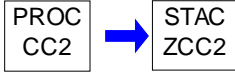
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: CC2

Source Name: NATURAL GAS COMPRESSOR #2

Source Capacity/Throughput:

**I. RESTRICTIONS.**

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

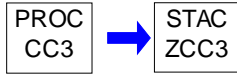
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: CC3

Source Name: NATURAL GAS COMPRESSOR #3

Source Capacity/Throughput:

**I. RESTRICTIONS.**

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

***** Permit Shield in Effect. *****

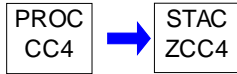
SECTION D. Source Level Requirements

Source ID: CC4

Source Name: NATURAL GAS COMPRESSOR #4

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG04
SG06

**I. RESTRICTIONS.**

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

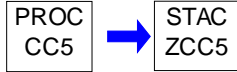
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: CC5

Source Name: NATURAL GAS COMPRESSOR #5

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG04
SG06**I. RESTRICTIONS.**

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

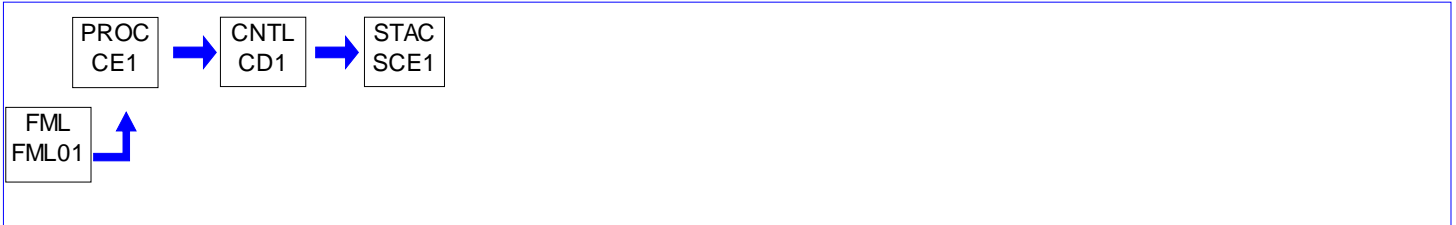
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: CE1

Source Name: CATERPILLAR G3616 LE ENGINE #1 (4,735-BHP, 4SLB)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG01
SG02**I. RESTRICTIONS.**

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

***** Permit Shield in Effect. *****



SECTION D. Source Level Requirements

Source ID: CE2

Source Name: CATERPILLAR G3616 LE ENGINE #2 (4,735-BHP, 4SLB)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG01
SG02



I. RESTRICTIONS.

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

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: CE3

Source Name: CATERPILLAR G3616 LE ENGINE #3 (4,735-BHP, 4SLB)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG01
SG02**I. RESTRICTIONS.**

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

***** Permit Shield in Effect. *****

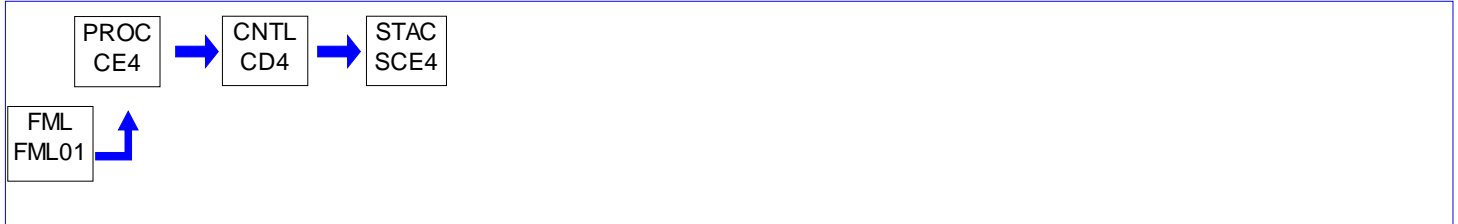
SECTION D. Source Level Requirements

Source ID: CE4

Source Name: CATERPILLAR G3616 LE ENGINE #4 (4.735-BHP, 4SLB)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG01
 SG03
 SG06

**I. RESTRICTIONS.**

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

***** Permit Shield in Effect. *****

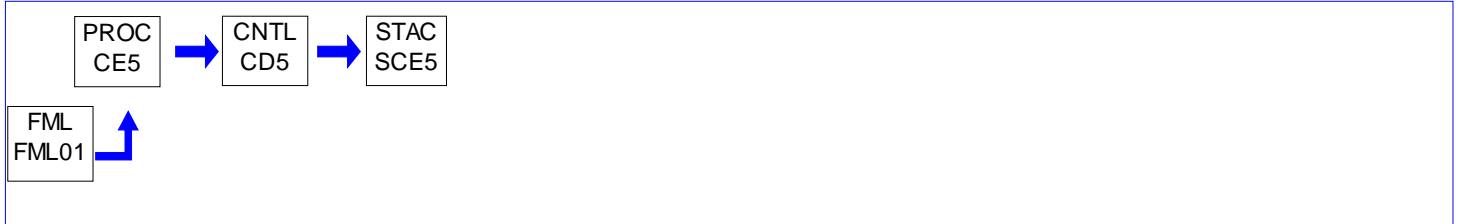
**SECTION D. Source Level Requirements**

Source ID: CE5

Source Name: CATERPILLAR G3616 LE ENGINE #5 (4,735-BHP, 4SLB)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG01
 SG03
 SG06

**I. RESTRICTIONS.**

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

***** Permit Shield in Effect. *****

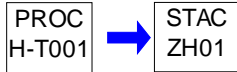
SECTION D. Source Level Requirements

Source ID: H-T001

Source Name: HARDEN WELL PAD TANK #1 (210-GALLON BARREL CAPACITY)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG07

**I. RESTRICTIONS.**

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

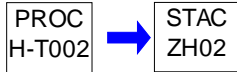
***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: H-T002 Source Name: HARDEN WELL PAD TANK #2 (210-GALLON BARREL CAPACITY)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG07

**I. RESTRICTIONS.**

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

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: TEG001 Source Name: TEG DEHYDRATOR #1 (120-MMSCF/D)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG05

**I. RESTRICTIONS.**

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

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: TEG002 Source Name: TEG DEHYDRATOR #2 (120-MMSCF/D)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG05

**I. RESTRICTIONS.**

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

VII. ADDITIONAL REQUIREMENTS.

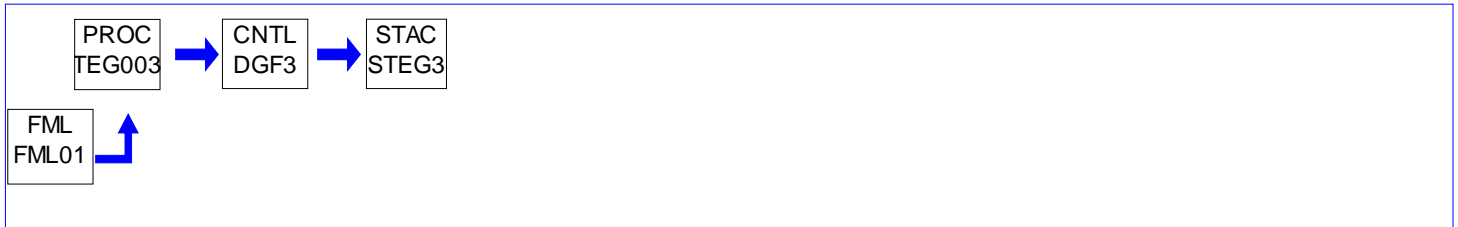
No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

***** Permit Shield in Effect. *****

SECTION D. Source Level Requirements

Source ID: TEG003 Source Name: TEG DEHYDRATOR #3 (120-MMSCF/D)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG05
SG06**I. RESTRICTIONS.**

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

***** Permit Shield in Effect. *****



SECTION D. Source Level Requirements

Source ID: TEG004 Source Name: BROWNS CREEK DEHYDRATOR #1 (4-MMSCF/D)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: SG05
SG08



I. RESTRICTIONS.

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

VI. WORK PRACTICE REQUIREMENTS.

**# 001 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

The VOC emissions from the dehydrator still vent stream shall be controlled by at least 85% either with a condenser, a flare or other air cleaning device, or any alternative methods as approved by the Department. This control efficiency requirement must be demonstrated to the satisfaction of the Department.

[This restriction is from Plan Approval PA-30-00194B, Section E, Source Group - BROWNS CREEK STATION, Condition #001.]

**# 002 [25 Pa. Code §127.441]
Operating permit terms and conditions.**

A Glycol Dehydrator using a flare as an air cleaning device shall ensure destruction of VOC emissions to the flare stack by maintaining the heat content of the flare gas above 300 BTU/scf, and by documenting daily visual observations of the continuous presence of a flame.

**SECTION D. Source Level Requirements**

[This restriction is from Plan Approval PA-30-00194B, Section E, Source Group - BROWNS CREEK STATION, Condition #002.]

VII. ADDITIONAL REQUIREMENTS.

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

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: SG01

Group Description: Compressor Engines 1, 2, 3, 4, and 5

Sources included in this group

ID	Name
CE1	CATERPILLAR G3616 LE ENGINE #1 (4,735-BHP, 4SLB)
CE2	CATERPILLAR G3616 LE ENGINE #2 (4,735-BHP, 4SLB)
CE3	CATERPILLAR G3616 LE ENGINE #3 (4,735-BHP, 4SLB)
CE4	CATERPILLAR G3616 LE ENGINE #4 (4,735-BHP, 4SLB)
CE5	CATERPILLAR G3616 LE ENGINE #5 (4,735-BHP, 4SLB)

I. RESTRICTIONS.**Emission Restriction(s).**

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Visible emissions from each Caterpillar G3616LE engine stack shall not exceed the following limitations:

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

[This condition was carried forward from Plan Approval PA-30-00194A, Section C, Condition #009, and Plan Approval PA-30-00194B, Section C, Condition #005.]

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

002 [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.

**SECTION E. Source Group Restrictions.**

(1) - (3) N/A.

(4) Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

(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.

(5) - (6) N/A.

(b) - (f) N/A.

[The five natural gas-fired compressor engines, Caterpillar G3616 LE #1 - #5 (4,735-bhp, 4SLB) (Source IDs CE1 - CE5), are subject to their applicable requirements of 40 CFR Part 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.]

**# 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 - NO_x, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines =100 HP (Except Gasoline and Rich Burn LPG) states:

(For) Engine type and fuel: Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500=HP<1,350). Maximum engine power HP=500 Manufacture date 7/1/2010 (On, or after):

Emission standards (are:)

g/HP-hr		
NO _x	CO	VOC
1.0	2.0	0.7

(or)

ppmvd at 15% O ₂		
NO _x	CO	VOC
82	270	60

{Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.

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

Compliance with the emission limits for Compressor Engines 1, 2, and 3 in Condition #001 of Source Group SG02 and emission limits for Compressor Engines 4 and 5 in Condition #001 of Source Group SG03 will assure compliance with the

**SECTION E. Source Group Restrictions.**

emission limits in this Condition.]

**# 004 [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.

**# 005 [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) N/A.

(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) N/A.

(2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.

(i) N/A.

(ii) 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 and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

(c) - (f) N/A.

(g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

(h) N/A.

**# 006 [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

SECTION E. Source Group Restrictions.

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:

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

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:

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

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:

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

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.

$$RF_i = CM_i / CA_i \quad (\text{Eq. 4})$$

Where:

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

**SECTION E. Source Group Restrictions.**

C_{Mi} = Measured concentration of compound i in ppmv as carbon.

C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{icorr} = R_{Fi} * C_{imeas} \quad (\text{Eq. 5})$$

Where:

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

C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 * C_{icorr} \quad (\text{Eq. 6})$$

Where:

C_{Peq} = 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 NO_x 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, According to the following requirements: (a) Alternatively, for NO_x, O₂, and moisture measurement, ducts =6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and =12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.

ii. Determine the O₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; Using (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005), According to the following requirements: (b) Measurements to determine O₂ concentration must be made at the same time as the measurements for NO_x 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; and Using (4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D6348-03, According to the following requirements: (c) Measurements to determine moisture must be made at the same time as the measurement for NO_x concentration.

v. Measure NO_x 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), Method 320 of 40 CFR part 63, appendix A, or ASTM Method D6348-03, According to the following requirements: (d) Results of this test consist of the average of the three 1-hour or longer runs.

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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, According to the following requirements: (a) Alternatively, for CO, O₂, and moisture measurement, ducts =6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and =12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
- ii. Determine the O₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; Using (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005), 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 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; and Using (4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D6348-03, According to the following requirements: (c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration.
- 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), Method 320 of 40 CFR part 63, appendix A, or ASTM Method D6348-03, 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, According to the following requirements: (a) Alternatively, for VOC, O₂, and moisture measurement, ducts =6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and =12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR part 60, Appendix A.
- ii. Determine the O₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; Using (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A-2 or ASTM Method D6522-00 (Reapproved 2005), 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 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; and Using (4) Method 4 of 40 CFR part 60, appendix A-3, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D6348-03, According to the following requirements: (c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration.
- 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 hydrocarbon cutter as described in 40 CFR 1065.265, Method 18 of 40 CFR part 60,

**SECTION E. Source Group Restrictions.**

appendix A-6, Method 320 of 40 CFR part 63, appendix A, or ASTM Method D6348-03, According to the following requirements: (d) Results of this test consist of the average of the three 1-hour or longer runs.

{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

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>).

You must meet the requirements in §60.4245(d).}}

007 [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) N/A.

(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) N/A.

(c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

(1) Name and address of the owner or operator;

(2) The address of the affected source;

(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(4) Emission control equipment; and

(5) Fuel used.

(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. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.

(e) N/A.

008 [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?**



SECTION E. Source Group Restrictions.

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.

...

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) - (3) N/A.

...

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.

...

Maximum engine power means maximum engine power as defined in 40 CFR 1048.801.

...

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. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

...

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: SG02

Group Description: Compressor Engines 1, 2, & 3 Only

Sources included in this group

ID	Name
CE1	CATERPILLAR G3616 LE ENGINE #1 (4,735-BHP, 4SLB)
CE2	CATERPILLAR G3616 LE ENGINE #2 (4,735-BHP, 4SLB)
CE3	CATERPILLAR G3616 LE ENGINE #3 (4,735-BHP, 4SLB)

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Emissions from each of Caterpillar G3616-LE Compressor Engines #1, #2, or #3 (Source IDs CE1, CE2, or CE3) during normal operation shall not exceed:

NOx	5.22 pounds per hour;
CO	1.46 pounds per hour;
VOC	1.98 pounds per hour*, and;
Formaldehyde	0.42 pounds per hour**

Emissions from each of these engines shall also not exceed:

NOx	22.9 tons;
CO	6.4 tons;
VOC	8.7 tons*, and;
Formaldehyde	1.84 tons**

during any consecutive 12-month period.

Emissions from each of these compressor engines shall also not exceed:

a. NOx	0.5 g/bhp-hr
b. CO	0.14 g/bhp-hr
c. VOC	0.19 g*/bhp-hr
d. Formaldehyde	0.04 g/bhp-hr

at rated engine speed (1,000 rpm) and power (4,375-bhp).

[* Based on U.S. EPA Method 25A (insensitive to formaldehyde), and/or either of Methods 18 or 320, or Agency approved equivalent, corrected to the basis of Method 25A as shown in §60.4244(g).

** Based on U.S. EPA Methods 320 or 323, or Agency approved equivalent.

Normal operation is defined as all periods when the engine is operating, excluding periods of startup and shutdown. Startup is the period from the beginning of engine operation until normal conditions are reached. Shutdown is the period from normal operation until engine rotation ceases. Neither startup nor shutdown periods shall exceed 30-minutes in duration.

This condition was carried forward from PA-30-00194A, Section E, Source Group NATURAL GAS ENGINES, Condition #001.]

**SECTION E. Source Group Restrictions.****# 002 [25 Pa. Code §129.97]****Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.**

(a) The owner and operator of a source listed in one or more of subsections (b)—(h) located at a major NOx emitting facility or major VOC emitting facility subject to § 129.96 (relating to applicability) shall comply with the applicable presumptive RACT requirement or RACT emission limitation, or both, beginning with the specified compliance date as follows, unless an alternative compliance schedule is submitted and approved under subsections (k)—(m) or § 129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule):

(1) January 1, 2017, for a source subject to § 129.96(a).

(2) N/A.

(b) - (f) N/A.

(g) Except as specified under subsection (c), the owner and operator of a NOx air contamination source specified in this subsection, which is located at a major NOx emitting facility or a VOC air contamination source specified in this subsection, which is located at a major VOC emitting facility subject to § 129.96 may not cause, allow or permit NOx or VOCs to be emitted from the air contamination source in excess of the applicable presumptive RACT emission limitation:

(1) - (2) N/A.

(3) A stationary internal combustion engine:

(i) For a lean burn stationary internal combustion engine with a rating equal to or greater than 500 bhp fired with:

(A) Natural gas or a noncommercial gaseous fuel, 3.0 grams NOx/bhp-hr.

(B) N/A.

(ii) - (iii) N/A.

(4) N/A.

(h) - (l) N/A.

[Authority for 25 Pa. Code § 129.97 was taken from 25 Pa. Code § 129.96, which states:

(a) N/A.

(b) The NOx requirements of this section and §§ 129.97—129.100 (RACT II) apply Statewide to the owner and operator of a NOx emitting facility ... when the installation of a new source or a modification or change in operation of an existing source after July 20, 2012, results in the source or facility meeting the definition of a major NOx emitting facility or a major VOC emitting facility and for which a requirement or an emission limitation, or both, has not been established in §§ 129.51—129.52c, 129.54—129.69, 129.71—129.73, 129.75, 129.77, 129.101—129.107 and 129.301—129.310.

(c) - (d) N/A.

Compliance with the NOx emission rate limit in Condition #001 ensures compliance with this condition.]

II. TESTING REQUIREMENTS.**# 003 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall perform periodic monitoring for NOx and CO emissions from each Caterpillar G3616LE Compressor Engines #1, #2, and #3 (Source IDs CE1, CE2, & CE3). Periodic monitoring shall be performed at intervals no

**SECTION E. Source Group Restrictions.**

greater than 1-year 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 period. A portable gas analyzer may be used to satisfy the requirements of this condition utilizing three 20-minute test runs. If a portable gas analyzer is utilized for measurement, it shall be used and maintained in accordance with manufacturer's specifications and the procedures specified in ASTM D 6522, or equivalent, as approved by the Department. Periodic NOx and CO monitoring results shall be submitted to the Department within 60 days of completion.

[This condition applies to Compressor Engines #1, #2, and #3 only (Source IDs CE1, CE2, & CE3). Sampling programs conducted to comply with this condition may be designed to also fulfill the testing requirements of 40 CFR Part 60, Subpart JJJJ, §60.4244, for these engines.

This condition was carried forward from PA-30-00194A, Section C, Condition #010(a).]

004 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Testing shall be conducted for formaldehyde emissions at the exhaust of each of Compressor Engines #1, #2, and #3, at intervals no greater than 1 year, in accordance with 25 Pa. Code 139, using Methods 310 or 313 of 40 CFR Part 63, Appendix A-4, or successor, or equivalent methods approved by the Department.

[This condition was carried forward from PA-30-00194A, Section C, Condition #010(a).]

005 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The Owner/Operator shall perform periodic monitoring for VOC emissions from each Caterpillar G3616LE Compressor Engines #1, #2, and #3 (Source IDs CE1, CE2, & CE3). Periodic monitoring shall be performed at intervals no greater than 1-year 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 period. A portable gas analyzer may be used to satisfy the requirements of this condition utilizing three 20-minute test runs. EPA Method 25A, which measures Total Organic Compounds, may be used for this monitoring, with the sampling procedure, or results, corrected to not include non-VOC organic compounds measured as part of the sampling program. Other test procedures with correction to the basis of Method 25A, as shown in §60.4244(g), can also be utilized, with Department approval.

[This condition applies to Compressor Engines #1, #2, and #3 only (Source IDs CE1, CE2, & CE3). Sampling programs conducted to comply with this condition may be designed to also fulfill the testing requirements of 40 CFR Part 60, Subpart JJJJ, §60.4244, for these engines.

This condition was carried forward from PA-30-00194A, Section C, Condition #010(a).]

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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



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 (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

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

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: SG03

Group Description: Compressor Engines 4 & 5 Only

Sources included in this group

ID	Name
CE4	CATERPILLAR G3616 LE ENGINE #4 (4,735-BHP, 4SLB)
CE5	CATERPILLAR G3616 LE ENGINE #5 (4,735-BHP, 4SLB)

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Emissions from each of Caterpillar G3616-LE Compressor Engines #4 or #5 (Source IDs CE4 or CE5) during normal operation shall not exceed:

NOx 5.22 pounds per hour;
 CO 1.46 pounds per hour;
 VOC 1.36 pounds per hour*, and;
 Formaldehyde 0.21 pounds per hour**

Emissions from each of these engines shall also not exceed:

NOx 22.9 tons;
 CO 6.4 tons;
 VOC 6.0 tons*, and;
 Formaldehyde 0.92 tons**

during any consecutive 12-month period.

Emissions from each of these compressor engines shall also not exceed:

a. NOx 0.5 g/bhp-hr
 b. CO 0.14 g/bhp-hr
 c. VOC 0.13 g*/bhp-hr
 d. Formaldehyde 0.02 g/bhp-hr

at rated engine speed (1,000 rpm) and power (4,375-bhp).

[* Based on U.S. EPA Method 25A (insensitive to formaldehyde), and/or either of Methods 18 or 320, or Agency approved equivalent, corrected to the basis of Method 25A as shown in §60.4244(g).

** Based on U.S. EPA Methods 320 or 323 (or Agency approved equivalent).

Normal operation is defined as all periods when the engine is operating, excluding periods of startup and shutdown. Startup is the period from the beginning of engine operation until normal conditions are reached. Shutdown is the period from normal operation until engine rotation ceases. Neither startup nor shutdown periods shall exceed 30-minutes in duration.

This condition was carried forward from PA-30-00194B, Section C, Condition #004.]

II. TESTING REQUIREMENTS.**# 002 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Testing shall be conducted for NOx and CO emissions at the exhaust of each of Compressor Engines #4 and #5, at time

**SECTION E. Source Group Restrictions.**

intervals no greater than each five-years, in accordance with 25 Pa. Code 139, using Method 7E and Method 10 of 40 CFR Part 60, Appendix A-4, or successor, or equivalent methods approved by the Department. This testing shall meet the testing and procedural requirements of 40 CFR § 60.4244. However, portable analyzer sampling methods, such as ASTM D6522-00, are not acceptable for this testing. The testing may also be used to fulfill requirements of 40 CFR Part 60, Subpart JJJJ.

[This condition was carried forward from PA-30-00194B, Section C, Condition #007.]

003 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Testing shall be conducted for VOC emissions at the exhaust of each of Compressor Engines #4 and #5, at time intervals no greater than each five-years, in accordance with 25 Pa. Code 139, using Methods 25A and 18 of 40 CFR Part 60, Appendix A-4, or successor, or equivalent methods approved by the Department. This testing shall meet the testing and procedural requirements of 40 CFR § 60.4244. The testing may also be used to fulfill requirements of 40 CFR Part 60, Subpart JJJJ.

[This condition was carried forward from PA-30-00194B, Section C, Condition #008.]

004 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Testing shall be conducted for formaldehyde emissions at the exhaust of each of Compressor Engines #4 and #5, at time intervals no greater than each five-years, in accordance with 25 Pa. Code 139, using Methods 310 or 313 of 40 CFR Part 63, Appendix A-4, or successor, or equivalent methods approved by the Department.

[This condition was carried forward from PA-30-00194B, Section C, Condition #009.]

III. MONITORING REQUIREMENTS.**# 005 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Owner/Operator shall perform periodic monitoring for NOx and CO emissions from each Caterpillar G3616LE Compressor Engines #4 and #5 (Source IDs CE4 & CE5). Periodic monitoring shall be performed within 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 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. If a portable gas analyzer is utilized for measurement, it shall be used and maintained in accordance with 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 60 days of completion.

[This condition applies to Compressor Engines #4 and #5 only (Source IDs CE4 and CE5). Sampling programs conducted to comply with this condition may be designed to also fulfill the testing requirements of 40 CFR Part 60, Subpart JJJJ, §60.4244, for these engines.

This condition was carried forward from PA-30-00194B, Section C, Condition #013.]

IV. RECORDKEEPING REQUIREMENTS.

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

**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 (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 006 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

Inlet temperature for the EMIT Technologies (or equivalent) oxidation catalysts installed on Compressor Engines #4 and #5 (Source IDs CE4 & CE5) shall be maintained between 600°F and 1250°F (or as otherwise specified by the manufacturer) under all operating conditions excluding startup, shutdown, or malfunction.

[This condition was carried forward from PA-30-00194B, Section C, Condition #029.]

VII. ADDITIONAL REQUIREMENTS.

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

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: SG04

Group Description: Natural Gas Compressors #4 & #5

Sources included in this group

ID	Name
CC4	NATURAL GAS COMPRESSOR #4
CC5	NATURAL GAS COMPRESSOR #5

I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

**# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5365]
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution
Am I subject to this subpart?**

You are subject to the applicable provisions of this subpart if you are the owner or operator of one or more of the onshore affected facilities listed in paragraphs (a) through (g) of this section for which you commence construction, modification or reconstruction after August 23, 2011, and on or before September 18, 2015.

(a) - (b) N/A.

(c) Each reciprocating compressor affected facility, which is a single reciprocating compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. ...

(d) - (e) N/A.

(f) The group of all equipment, except compressors, within a process unit is an affected facility.

(1) Addition or replacement of equipment for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.

(2) - (3) N/A.

**SECTION E. Source Group Restrictions.**

(g) - (h) N/A.

[Natural Gas Compressors #4 and #5 are reciprocating compressors, were constructed during this time, and have applicable requirements under 40 CFR Part 60, Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015]

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5370]
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution
When must I comply with this subpart?

(a) You must be in compliance with the standards of this subpart no later than October 15, 2012 or upon startup, whichever is later.

(b) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(c) - (d) N/A.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5385]
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution
What standards apply to reciprocating compressor affected facilities?

You must comply with the standards in paragraphs (a) through (d) of this section for each reciprocating compressor affected facility.

(a) You must replace the reciprocating compressor rod packing according to either paragraph (a)(1) or (2) of this section or you must comply with paragraph (a)(3) 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.

(3) N/A.

(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.

[EQM is required to replace rod packing at intervals no less often than once every 26,000-hours of operation, or 36-months, whichever occurs first.]

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5415]
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution
How do I demonstrate continuous compliance with the standards for my gas well affected facility, my centrifugal compressor affected facility, my stationary reciprocating compressor affected facility, my pneumatic controller affected facility, my storage vessel affected facility, and my affected facilities at onshore natural gas processing plants?

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(a) - (b) N/A.

(c) For each reciprocating compressor affected facility complying with §60.5385(a)(1) or (2), you must demonstrate continuous compliance according to paragraphs (c)(1) through (3) of this section. For each reciprocating compressor affected facility complying with §60.5385(a)(3), you must demonstrate continuous compliance according to paragraph (c)(4) of this section.

(1) 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.

(2) You must submit the annual report as required in §60.5420(b) and maintain records as required in §60.5420(c)(3).

(3) 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.

(d) - (g) N/A.

**# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5420]
Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution
What are my notification, reporting, and recordkeeping requirements?**

(a) You must submit the notifications according to paragraphs (a)(1) and (2) of this section if you own or operate one or more of the affected facilities specified in §60.5365 that was constructed, modified, or reconstructed during the reporting period.

(1) If you own or operate a reciprocating compressor ... affected facility you are not required to submit the notifications required in §60.7(a)(1), (3), and (4).

(2) N/A.

(b) Reporting requirements. You must submit annual reports containing the information specified in paragraphs (b)(1) through (6) of this section to the Administrator and performance test reports as specified in paragraph (b)(7) or (8) of this section. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to §60.5410. Subsequent annual reports are due no later than same date each year as the initial annual report. If you own or operate more than one affected facility, you may submit one report for multiple affected facilities provided the report contains all of the information required as specified in paragraphs (b)(1) through (6) of this section. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. ...

(1) The general information specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) The company name and address of the affected facility.

(ii) An identification of each affected facility being included in the annual report.

(iii) Beginning and ending dates of the reporting period.

(iv) A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(2) - (6) N/A.

(7)(i) Within 60 days after the date of completing each performance test (see §60.8 of this part) as required by this subpart, except testing conducted by the manufacturer as specified in §60.5413(d), you must submit the results of the performance tests required by this subpart to the EPA as follows. You must use the latest version of the EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>) existing at the time of the performance test to generate a submission package file, which documents the performance test. You must then submit the file generated by the ERT

**SECTION E. Source Group Restrictions.**

through the EPA's Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed by logging in to the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). Only data collected using test methods supported by the ERT as listed on the ERT Web site are subject to this requirement for submitting reports electronically. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test to the Administrator at the appropriate address listed in §60.4.

(ii) All reports, except as specified in paragraph (b)(8) of this section, required by this subpart not subject to the requirements in paragraph (a)(2)(i) of this section must be sent to the Administrator at the appropriate address listed in §60.4 of this part. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy).

(8) For enclosed combustors tested by the manufacturer in accordance with §60.5413(d), an electronic copy of the performance test results required by §60.5413(d) shall be submitted via email to Oil_and_Gas_PT@EPA.GOV unless the test results for that model of combustion control device are posted at the following Web site: epa.gov/airquality/oilandgas/.

(c) Recordkeeping requirements. You must maintain the records identified as specified in §60.7(f) and in paragraphs (c)(1) through (14) of this section. All records required by this subpart must be maintained either onsite or at the nearest local field office for at least 5 years.

(1) - (14) N/A.

[40 CFR §60.7(a)(1) - (4) states:

(1) A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

(2) N/A.

(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.]

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5430]

Subpart OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution
What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act, in subpart A or subpart VVa of part 60; and the following terms shall have the specific meanings given them.

...

Capital expenditure means, in addition to the definition in 40 CFR 60.2, an expenditure for a physical or operational change to an existing facility that:

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(1) Exceeds P, the product of the facility's replacement cost, R, and an adjusted annual asset guideline repair allowance, A, as reflected by the following equation: $P = R \times A$, where

(i) The adjusted annual asset guideline repair allowance, A, is the product of the percent of the replacement cost, Y, and the applicable basic annual asset guideline repair allowance, B, divided by 100 as reflected by the following equation:

$$A = Y * (B / 100);$$

(ii) The percent Y is determined from the following equation: $Y = 1.0 - 0.575 \log X$, where X is 2011 minus the year of construction; and

(iii) The applicable basic annual asset guideline repair allowance, B, is 4.5.

(2) N/A.

...

Collection system means any infrastructure that conveys gas or liquids from the well site to another location for treatment, storage, processing, recycling, disposal or other handling.

...

Compressor station means any permanent combination of one or more compressors that move natural gas at increased pressure from fields, in transmission pipelines, or into storage.

...

Natural gas transmission means the pipelines used for the long distance transport of natural gas (excluding processing). Specific equipment used in natural gas transmission includes the land, mains, valves, meters, boosters, regulators, storage vessels, dehydrators, compressors, and their driving units and appurtenances, and equipment used for transporting gas from a production plant, delivery point of purchased gas, gathering system, storage area, or other wholesale source of gas to one or more distribution area(s).

...

Reciprocating compressor means a piece of equipment that increases the pressure of a process gas by positive displacement, employing linear movement of the driveshaft.

Reciprocating compressor rod packing means a series of flexible rings in machined metal cups that fit around the reciprocating compressor piston rod to create a seal limiting the amount of compressed natural gas that escapes to the atmosphere.

...

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: SG05

Group Description: TEG Dehydrators

Sources included in this group

ID	Name
TEG001	TEG DEHYDRATOR #1 (120-MMSCF/D)
TEG002	TEG DEHYDRATOR #2 (120-MMSCF/D)
TEG003	TEG DEHYDRATOR #3 (120-MMSCF/D)
TEG004	BROWNS CREEK DEHYDRATOR #1 (4-MMSCF/D)

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate of 0.4 pound per million Btu of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50.

(2) - (3) N/A.

(b) N/A.

002 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Visible emissions from each Glycol Dehydrator using a flare shall not exceed the following limitations:

a. Equal to or greater than 10% for a period or periods aggregating more than 3 minutes in any one hour.

b. Equal to or greater than 30% at any time.

003 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Emissions of benzene from the process vents of each of the dehydrators at the Callisto Compression Station TEG Dehydrators #1, #2, and #3 (Source IDs TEG001, TEG002, and TEG003) Browns Creek Dehydrator #1 (Source ID TEG004), shall be less than 0.90 megagrams (0.99 tons) during each consecutive 12-month period.

[This requirement was taken to avoid certain requirements in 40 CFR Part 63, Subpart HH.]

004 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

Emissions of NO_x from the reboiler of each of the dehydrators at the Callisto Compression Station (TEG Dehydrators #1, #2, and #3 (Source IDs TEG001, TEG002, and TEG003)) shall be less than 1.00 ton per year.

[This requirement was taken to avoid the applicability of RACT II.]

II. TESTING REQUIREMENTS.

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

**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 (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.**# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.760]****Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities
Applicability and designation of affected source.**

(a) This subpart applies to the owners and operators of the emission points, specified in paragraph (b) of this section that are located at oil and natural gas production facilities that meet the specified criteria in paragraphs (a)(1) and ... (a)(3) of this section.

(1) Facilities that are ... area sources of hazardous air pollutants (HAP) as defined in §63.761. ...

(i) - (iii) N/A.

(2) N/A.

(3) Facilities that process, ... natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. ...

(b) The affected sources ... for area sources in paragraph (b)(2) of this section.

(1) N/A.

(2) For area sources, the affected source includes each triethylene glycol (TEG) dehydration unit located at a facility that meets the criteria specified in paragraph (a) of this section.

(c) Any source that determines it is not a major source but has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP (i.e., 50 percent of the major source thresholds), shall update its major source determination within 1 year of the prior determination or October 15, 2012, whichever is later, and each year thereafter, using gas composition data measured during the preceding 12 months.

(d) N/A.

(e) N/A.

(f) The owner or operator of an affected major source shall achieve compliance with the provisions of this subpart by the dates specified in paragraphs (f)(1), (2), and (f)(7) through (9) of this section. The owner or operator of an affected area source shall achieve compliance with the provisions of this subpart by the dates specified in paragraphs (f)(3) through (6) of this section.

(1) - (5) N/A.

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(6) The owner or operator of an affected area source that is not located in an Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences on or after July 8, 2005, shall achieve compliance with the provisions of this subpart immediately upon initial startup or January 3, 2007, whichever date is later.

(7) - (9) N/A.

(g) - (h) N/A.

[TEG Dehydrators #1, #2, and #3 (Source IDs TEG001, TEG002, and TEG003) Browns Creek Dehydrator #1 (Source ID TEG004) have applicable requirements under 40 CFR Part 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities]

006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.761]

Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities Definitions.

All terms used in this subpart shall have the meaning given them in the Clean Air Act (Act), subpart A of this part (General Provisions), and in this section. If the same term is defined in subpart A and in this section, it shall have the meaning given in this section for purposes of this subpart.

...

Ancillary equipment means any of the following pieces of equipment: pumps, pressure relief devices, sampling connection systems, open-ended valves, or lines, valves, flanges, or other connectors.

...

Combustion device means an individual unit of equipment, such as a flare, incinerator, process heater, or boiler, used for the combustion of organic HAP emissions.

Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature, pressure, or both, and remains liquid at standard conditions, as specified in §63.2.

...

Control device means any equipment used for recovering or oxidizing HAP or volatile organic compound (VOC) vapors. Such equipment includes, but is not limited to, absorbers, carbon adsorbers, condensers, incinerators, flares, boilers, and process heaters. For the purposes of this subpart, if gas or vapor from regulated equipment is used, reused (i.e., injected into the flame zone of an enclosed combustion device), returned back to the process, or sold, then the recovery system used, including piping, connections, and flow inducing devices, is not considered to be a control device or closed-vent system.

...

Equipment leaks means emissions of HAP from ancillary equipment (as defined in this section) and compressors.

Facility means any grouping of equipment where hydrocarbon liquids are processed, upgraded (i.e., remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. ...

Field natural gas means natural gas extracted from a production well prior to entering the first stage of processing, such as dehydration.

...

Flash tank. See the definition for gas-condensate-glycol (GCG) separator.

**SECTION E. Source Group Restrictions.**

...

Gas-condensate-glycol (GCG) separator means a two- or three-phase separator through which the "rich" glycol stream of a glycol dehydration unit is passed to remove entrained gas and hydrocarbon liquid. The GCG separator is commonly referred to as a flash separator or flash tank.

...

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

...

Glycol dehydration unit process vent means the glycol dehydration unit reboiler vent and the vent from the GCG separator (flash tank), if present.

Glycol dehydration unit reboiler vent means the vent through which exhaust from the reboiler of a glycol dehydration unit passes from the reboiler to the atmosphere or to a control device.

Hazardous air pollutants or HAP means the chemical compounds listed in section 112(b) of the Clean Air Act. All chemical compounds listed in section 112(b) of the Act need to be considered when making a major source determination. Only the HAP compounds listed in Table 1 of this subpart need to be considered when determining compliance.

Hydrocarbon liquid means any naturally occurring, unrefined petroleum liquid.

...

Natural gas means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface. The principal hydrocarbon constituent is methane.

Natural gas liquids (NGL) means the liquid hydrocarbons, such as ethane, propane, butane, pentane, natural gasoline, and condensate that are extracted from field natural gas.

...

Volatile hazardous air pollutant concentration or VHAP concentration means the fraction by weight of all HAP contained in a material as determined in accordance with procedures specified in §63.772(a).

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.764]**Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities General standards.**

(a) N/A.

(b) All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in §63.13. Reports may be submitted on electronic media.

(c) -(d) N/A.

(e) Exemptions. (1) The owner or operator of an area source is exempt from the requirements of paragraph (d) of this section if the criteria listed in paragraph (e)(1)(i) or (ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in §63.774(d)(1).

(i) N/A.

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(ii) The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year, as determined by the procedures specified in §63.772(b)(2) of this subpart.

(2) The owner or operator is exempt from the requirements of paragraph (c)(3) of this section for ancillary equipment (as defined in §63.761) and compressors at a natural gas processing plant subject to this subpart if the criteria listed in paragraph (e)(2)(i) or (ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in §63.774(d)(2).

(i) Any ancillary equipment and compressors that contain or contact a fluid (liquid or gas) must have a total VHAP concentration less than 10 percent by weight, as determined by the procedures specified in §63.772(a); or

(ii) N/A.

(f) - (h) N/A.

(i) In all cases where the provisions of this subpart require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of this standard to fail to take action to repair the leak(s) within the specified time. If action is taken to repair the leak(s) within the specified time, failure of that action to successfully repair the leak(s) is not a violation of this standard. However, if the repairs are unsuccessful, and a leak is detected, the owner or operator shall take further action as required by the applicable provisions of this subpart.

(j) At all times the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.771]

Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities Control equipment requirements.

(a) - (c) N/A.

(d) Control device requirements for sources except small glycol dehydration units. ...

(1) The control device used to reduce HAP emissions in accordance with the standards of this subpart shall be one of the control devices specified in paragraphs (d)(1)(i) through (iii) of this section.

(i) - (ii) N/A.

(iii) A flare, as defined in §63.761, that is designed and operated in accordance with the requirements of §63.11(b).

(2) N/A.

(3) N/A.

(4) - (5) N/A.

(e) - (f) N/A.

009 [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.

(a) Determination of material VHAP or HAP concentration to determine the applicability of the equipment leak standards under this subpart (§63.769). Each piece of ancillary equipment and compressors are presumed to be in VHAP service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VHAP service or in wet gas service.

(1) For a piece of ancillary equipment and compressors to be considered not in VHAP service, it must be determined that

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the percent VHAP content can be reasonably expected never to exceed 10.0 percent by weight. For the purposes of determining the percent VHAP content of the process fluid that is contained in or contacts a piece of ancillary equipment or compressor, you shall use the method in either paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

(i) Method 18 of 40 CFR part 60, appendix A, or

(ii) ASTM D6420-99 (2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (incorporated by reference—see §63.14), provided that the provisions of paragraphs (a)(1)(ii)(A) through (D) of this section are followed:

(A) The target compound(s) are those listed in section 1.1 of ASTM D6420-99 (2004);

(B) The target concentration is between 150 parts per billion by volume and 100 parts per million by volume;

(C) For target compound(s) not listed in Table 1.1 of ASTM D6420-99 (2004), but potentially detected by mass spectrometry, the additional system continuing calibration check after each run, as detailed in section 10.5.3 of ASTM D6420-99 (2004), is conducted, met, documented, and submitted with the data report, even if there is no moisture condenser used or the compound is not considered water soluble; and

(D) For target compound(s) not listed in Table 1.1 of ASTM D6420-99 (2004), and not amenable to detection by mass spectrometry, ASTM D6420-99 (2004) may not be used.

(2) For a piece of ancillary equipment and compressors to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction of natural gas liquids.

(b) Determination of glycol dehydration unit flowrate, benzene emissions, or BTEX emissions. The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate, benzene emissions, or BTEX emissions.

(1) The determination of actual flowrate of natural gas to a glycol dehydration unit shall be made using the procedures of either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(i) The owner or operator shall install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. The owner or operator shall convert annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.

(ii) The owner or operator shall document, to the Administrator's satisfaction, the actual annual average natural gas flowrate to the glycol dehydration unit.

(2) The determination of actual average benzene or BTEX emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (b)(2)(i) or (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 or BTEX 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 or BTEX 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.

(c) - (d) N/A.

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(e) Control device performance test procedures. This paragraph applies to the performance testing of control devices. ... Flares shall meet the provisions in paragraph (e)(2) of this section. As an alternative to conducting a performance test under this section for combustion control devices, a control device that can be demonstrated to meet the performance requirements of §63.771(d)(1), (e)(3)(ii) or (f)(1) through a performance test conducted by the manufacturer, as specified in paragraph (h) of this section, can be used.

(1) The following control devices are exempt from the requirements to conduct performance tests and design analyses under this section:

(i) Except as specified in paragraph (e)(2) of this section, a flare, as defined in §63.761, that is designed and operated in accordance with §63.11(b);

(ii) N/A.

(iii) Except for control devices used for small glycol dehydration units, a boiler or process heater into which the vent stream is introduced with the primary fuel or is used as the primary fuel;

(iv) - (vi) N/A.

(2) - (5) N/A.

(f) - (g) N/A.

(h) Performance testing for combustion control devices—manufacturers' performance test. (Please see below.)

(i) Compliance demonstration for combustion control devices—manufacturers' performance test. This paragraph applies to the demonstration of compliance for a combustion control device tested under the provisions in paragraph (h) of this section. Owners or operators shall demonstrate that a control device achieves the performance requirements of §63.771(d)(1), (e)(3)(ii) or (f)(1), by installing a device tested under paragraph (h) of this section and complying with the following criteria:

(1) The inlet gas flowrate shall meet the range specified by the manufacturer. Flowrate shall be calculated as specified in §63.773(d)(3)(i)(H)(1).

(2) A pilot flame shall be present at all times of operation. The pilot flame shall be monitored in accordance with §63.773(d)(3)(i)(H)(2).

(3) Devices shall be operated with no visible emissions, except for periods not to exceed a total of 2 minutes during any hour. A visible emissions test using Method 22, 40 CFR part 60, Appendix A, shall be performed each calendar quarter. The observation period shall be 1 hour and shall be conducted according to EPA Method 22, 40 CFR part 60, Appendix A.

(4) Compliance with the operating parameter limit is achieved when the following criteria are met:

(i) The inlet gas flowrate monitored under paragraph (i)(1) of this section is equal to or below the maximum established by the manufacturer; and

(ii) The pilot flame is present at all times; and

(iii) During the visible emissions test performed under paragraph (i)(3) of this section the duration of visible emissions does not exceed a total of 2 minutes during the observation period. Devices failing the visible emissions test shall follow manufacturers repair instructions, if available, or best combustion engineering practice as outlined in the unit inspection and maintenance plan, to return the unit to compliant operation. All repairs and maintenance activities for each unit shall be recorded in a maintenance and repair log and shall be available on site for inspection.

(iv) Following return to operation from maintenance or repair activity, each device must pass a Method 22 visual observation as described in paragraph (i)(3) of this section.

**SECTION E. Source Group Restrictions.**

[Paragraph h of this Condition is included in this permit by reference.]

010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.774]**Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities Recordkeeping requirements.**

(a) The recordkeeping provisions of 40 CFR part 63, subpart A, that apply and those that do not apply to owners and operators of sources subject to this subpart are listed in Table 2 of this subpart.

(b) Except as specified in paragraphs (c), (d), and (f) of this section, each owner or operator of a facility subject to this subpart shall maintain the records specified in paragraphs (b)(1) through (11) of this section:

(1) The owner or operator of an affected source subject to the provisions of this subpart shall maintain files of all information (including all reports and notifications) required by this subpart. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period.

(i) All applicable records shall be maintained in such a manner that they can be readily accessed.

(ii) The most recent 12 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request.

(iii) The remaining 4 years of records may be retained offsite.

(iv) Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

(2) Records specified in §63.10(b)(2);

(3) Records specified in §63.10(c) for each monitoring system operated by the owner or operator in accordance with the requirements of §63.773(d). Notwithstanding the requirements of §63.10(c), monitoring data recorded during periods identified in paragraphs (b)(3)(i) through (iv) of this section shall not be included in any average or percent leak rate computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating or failed to collect required data.

(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;

(ii) N/A.

(iii) Periods of non-operation resulting in cessation of the emissions to which the monitoring applies; and

(iv) Excursions due to invalid data as defined in §63.773(d)(6)(iv).

(4) Each owner or operator using a control device to comply with §63.764 of this subpart shall keep the following records up-to-date and readily accessible:

(i) Continuous records of the equipment operating parameters specified to be monitored under §63.773(d) or specified by the Administrator in accordance with §63.773(d)(3)(iii). For flares, the hourly records and records of pilot flame outages specified in paragraph (e) of this section shall be maintained in place of continuous records.

(ii) Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in §63.773(d)(4) of this subpart, except as specified in paragraphs (b)(4)(ii)(A) through (C) of this section.

(A) For flares, the records required in paragraph (e) of this section.

(B) For condensers installed to comply with §63.765, records of the annual 365-day rolling average condenser efficiency determined under §63.772(g) shall be kept in addition to the daily averages.

**SECTION E. Source Group Restrictions.**

(C) For a control device whose model is tested under §63.772(h), the records required in paragraph (h) of this section.

(iii) Hourly records of the times and durations of all periods when the vent stream is diverted from the control device or the device is not operating.

(iv) Where a seal or closure mechanism is used to comply with §63.771(c)(3)(i)(B), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken.

(5) Records identifying all parts of the cover or closed-vent system that are designated as unsafe to inspect in accordance with §63.773(c)(5), an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

(6) Records identifying all parts of the cover or closed-vent system that are designated as difficult to inspect in accordance with §63.773(c)(6), an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

(7) For each inspection conducted in accordance with §63.773(c), during which a leak or defect is detected, a record of the information specified in paragraphs (b)(7)(i) through (b)(7)(viii) of this section.

(i) The instrument identification numbers, operator name or initials, and identification of the equipment.

(ii) The date the leak or defect was detected and the date of the first attempt to repair the leak or defect.

(iii) Maximum instrument reading measured by the method specified in §63.772(c) after the leak or defect is successfully repaired or determined to be nonrepairable.

(iv) "Repair delayed" and the reason for the delay if a leak or defect is not repaired within 15 calendar days after discovery of the leak or defect.

(v) The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown.

(vi) The expected date of successful repair of the leak or defect if a leak or defect is not repaired within 15 calendar days.

(vii) Dates of shutdowns that occur while the equipment is unrepaired.

(viii) The date of successful repair of the leak or defect.

(ix) Records identifying the carbon replacement schedule under §63.771(d)(5) and records of each carbon replacement.

(8) For each inspection conducted in accordance with §63.773(c) during which no leaks or defects are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks or defects were detected.

(9) Records identifying ancillary equipment and compressors that are subject to and controlled under the provisions of 40 CFR part 60, subpart KKK; 40 CFR part 61, subpart V; or 40 CFR part 63, subpart H.

(10) Records of glycol dehydration unit baseline operations calculated as required under §63.771(e)(1).

(11) Records required in §63.771(e)(3)(i) documenting that the facility continues to operate under the conditions specified in §63.771(e)(2).

(c) An owner or operator that elects to comply with the benzene emission limit specified in §63.765(b)(1)(ii) shall document, to the Administrator's satisfaction, the following items:

(1) The method used for achieving compliance and the basis for using this compliance method; and

**SECTION E. Source Group Restrictions.**

(2) The method used for demonstrating compliance with 0.90 megagrams per year of benzene.

(3) Any information necessary to demonstrate compliance as required in the methods specified in paragraphs (c)(1) and (c)(2) of this section.

(d)(1) An owner or operator of a glycol dehydration unit that meets the exemption criteria in ... §63.764(e)(1)(ii) shall maintain the records specified in paragraph (d)(1)(i) or paragraph (d)(1)(ii) of this section, as appropriate, for that glycol dehydration unit.

(i) The actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day) as determined in accordance with §63.772(b)(1), or

(ii) The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with §63.772(b)(2).

(2) An owner or operator that is exempt from the control requirements under §63.764(e)(2) of this subpart shall maintain the following records:

(i) Information and data used to demonstrate that a piece of ancillary equipment or a compressor is not in VHAP service or not in wet gas service shall be recorded in a log that is kept in a readily accessible location.

(ii) Identification and location of ancillary equipment or compressors, located at a natural gas processing plant subject to this subpart, that is in VHAP service less than 300 hours per year.

(e) Record the following when using a flare to comply with §63.771(d):

(1) Flare design (i.e., steam-assisted, air-assisted, or non-assisted);

(2) All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination required by §63.772(e)(2); and

(3) All hourly records and other recorded periods when the pilot flame is absent.

(f) The owner or operator of an area source not located within a UA plus offset and UC boundary must keep a record of the calculation used to determine the optimum glycol circulation rate in accordance with §63.764(d)(2)(i) or §63.764(d)(2)(ii), as applicable.

(g) The owner or operator of an affected source subject to this subpart shall maintain records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control equipment and monitoring equipment. The owner or operator shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with §63.764(j), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(h) Record the following when using a control device whose model is tested under §63.772(h) to comply with §63.771(d), (e)(3)(ii), and (f)(1):

(1) All visible emission readings and flowrate calculations made during the compliance determination required by §63.772(i); and

(2) All hourly records and other recorded periods when the pilot flame is absent.

(i) The date the semi-annual maintenance inspection required under §63.773(b) is performed. Include a list of any modifications or repairs made to the control device during the inspection and other maintenance performed such as cleaning of the fuel nozzles.

[40 CFR §63.772(h) is included in this permit by reference.

**SECTION E. Source Group Restrictions.**

Table 2 to Subpart HH of Part 63 - APPLICABILITY OF 40 CFR PART 63 GENERAL PROVISIONS TO SUBPART HH, states the following, regarding recordkeeping requirements:

General provisions reference: 63.10(b)(1), General provisions reference: Yes, General provisions reference: §63.774(b)(1) requires sources to maintain the most recent 12 months of data on-site and allows offsite storage for the remaining 4 years of data.

General provisions reference: 63.10(b)(2)(ii), General provisions reference: No, General provisions reference: See §63.774(g) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunctions.

General provisions reference: 63.10(b)(3), General provisions reference: Yes, General provisions reference: 63.774(b)(1) requires sources to maintain the most recent 12 months of data on-site and allows offsite storage for the remaining 4 years of data.

General provisions reference: 63.10(c)(10) - (11), General provisions reference: No, General provisions reference: See §63.774(g) for recordkeeping of malfunctions.]

011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.775]

Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities Reporting requirements.

(a) The reporting provisions of subpart A of this part, that apply and those that do not apply to owners and operators of sources subject to this subpart are listed in Table 2 of this subpart.

(b) N/A.

(c) Except as provided in paragraph (c)(8), each owner or operator of an area source subject to this subpart shall submit the information listed in paragraph (c)(1) of this section. ...

(1) - (7) N/A.

(8) An owner or operator of a TEG dehydration unit located at an area source that meets the criteria in §63.764(e)(1)(i) or §63.764(e)(1)(ii) is exempt from the reporting requirements for area sources in paragraphs (c)(1) through (7) of this section, for that unit.

(d) - (e) N/A.

(f) Notification of process change. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the owner or operator shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report as required under paragraph (e) of this section, whichever is sooner. The report shall include:

(1) A brief description of the process change;

(2) A description of any modification to standard procedures or quality assurance procedures;

(3) Revisions to any of the information reported in the original Notification of Compliance Status Report under paragraph (d) of this section; and

(4) Information required by the Notification of Compliance Status Report under paragraph (d) of this section for changes involving the addition of processes or equipment.

(g) N/A.

[Table 2 to Subpart HH of Part 63 - APPLICABILITY OF 40 CFR PART 63 GENERAL PROVISIONS TO SUBPART HH, states the following, regarding reporting requirements:

SECTION E. Source Group Restrictions.

General provisions reference: 63.9(h)(1) through (h)(3), General provisions reference: Yes, General provisions reference: Area sources located outside UA plus offset and UC boundaries are not required to submit notifications of compliance status.

General provisions reference: 63.10(d)(2), General provisions reference: Yes, General provisions reference: Area sources located outside UA plus offset and UC boundaries do not have to submit performance test reports.

General provisions reference: 63.10(e)(1), General provisions reference: Yes, General provisions reference: Area sources located outside UA plus offset and UC boundaries are not required to submit reports.

General provisions reference: 63.10(e)(2), General provisions reference: Yes, General provisions reference: Area sources located outside UA plus offset and UC boundaries are not required to submit reports.

General provisions reference: 63.10(e)(3)(i), General provisions reference: Yes, General provisions reference: ... Area sources located outside UA plus offset and UC boundaries are not required to submit reports.]

*** **Permit Shield in Effect.** ***

**SECTION E. Source Group Restrictions.**

Group Name: SG06

Group Description: Facility Expansion Sources

Sources included in this group

ID	Name
101	5 MICROTURBINE GENERATORS (268-BHP, EACH)
CC4	NATURAL GAS COMPRESSOR #4
CC5	NATURAL GAS COMPRESSOR #5
CE4	CATERPILLAR G3616 LE ENGINE #4 (4,735-BHP, 4SLB)
CE5	CATERPILLAR G3616 LE ENGINE #5 (4,735-BHP, 4SLB)
TEG003	TEG DEHYDRATOR #3 (120-MMSCF/D)

I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.**# 001 [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. 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

**SECTION E. Source Group Restrictions.**

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.

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: SG07

Group Description: Condensate Storage Tanks

Sources included in this group

ID	Name
B-T001	BROWNS CREEK TANK #1 (210-GALLON BARREL CAPACITY)
B-T002	BROWNS CREEK TANK #2 (50-GALLON BARREL CAPACITY)
B-T003	BROWNS CREEK TANK #3 (210-GALLON BARREL CAPACITY)
H-T001	HARDEN WELL PAD TANK #1 (210-GALLON BARREL CAPACITY)
H-T002	HARDEN WELL PAD TANK #2 (210-GALLON BARREL CAPACITY)

I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.**# 001 [25 Pa. Code §129.57]****Storage tanks less than or equal to 40,000 gallons capacity containing VOCs**

The provisions of this section apply to above ground stationary storage tanks with a capacity equal to or greater than 2,000 gallons which contain volatile organic compounds with vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions. Storage tanks covered under this section shall have pressure relief valves which are maintained in good operating condition and which are set to release at no less than .7 psig (4.8 kilopascals) of pressure or .3 psig (2.1 kilopascals) of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department. Section 129.56(g) (relating to storage tanks greater than 40,000 gallons capacity containing VOCs) applies to this section. Petroleum liquid storage vessels which are used to store produced crude oil and condensate prior to lease custody transfer shall be exempt from the requirements of this section.

VII. ADDITIONAL REQUIREMENTS.

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

***** Permit Shield in Effect. *****



SECTION E. Source Group Restrictions.

Group Name: SG08
Group Description: Browns Creek Dehydration
Sources included in this group

ID	Name
DGF4	BROWNS CREEK DEHYDRATOR FLARE
TEG004	BROWNS CREEK DEHYDRATOR #1 (4-MMSCF/D)

I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

001 [25 Pa. Code §127.441]
Operating permit terms and conditions.
 The permittee shall maintain comprehensive, accurate records which, at a minimum, shall include:

- A. The number of hours per calendar year that each piece of equipment operated.
- B. The amount of fuel used per calendar year in each piece of equipment.
- C. A record of the results of any testing conducted to determine compliance with the applicable emission limitations and control efficiency requirements.
- D. Records of daily visual observations of the continuous presence of the flare pilot flame.
- E. The date of any maintenance and repair of the required air cleaning device and duration of uncontrolled emissions during such activities.

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

***** Permit Shield in Effect. *****



SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this Title V facility.



SECTION G. Emission Restriction Summary.

No emission restrictions listed in this section of the permit.

**SECTION H. Miscellaneous.**

1. The capacities/throughputs and other information listed in Section A, D, E, and this section, excluding those in permit restrictions, are for informational purposes only and are not enforceable limits.

2. The following description is for information purposes only:

This initial Title V Operating Permit (TVOP) authorizes EQM Gathering OPTO LLC to operate a natural gas compressor station at their Callisto Compressor Station facility, located in Morris Township, Greene County.

The facility primarily pressurizes natural gas exiting the Jupiter Gathering System.

3. An estimate of potential annual emissions from the Callisto Compressor Station, performed on July 20, 2017, showed them to be:

120.51 tons of NOx
 42.99 tons of VOC
 40.85 tons of CO
 7.50 tons of PM10
 (SO2 emissions were negligible.)

11.68 tons of the sum of all HAPs, including:
 7.36 tons of formaldehyde and;
 1.16 tons of acetaldehyde

There are also:

107,245 tons of CO2e

4. Air contamination sources are as follows:

Source ID 101 - 5 Microturbine Generators (268-bhp, Each)
 Source ID B-T001 - Browns Creek Tank #1
 Source ID B-T002 - Browns Creek Tank #2
 Source ID B-T003 - Browns Creek Tank #3
 Source ID CC1 - Natural Gas Compressor #1
 Source ID CC2 - Natural Gas Compressor #2
 Source ID CC3 - Natural Gas Compressor #3
 Source ID CC4 - Natural Gas Compressor #4
 Source ID CC5 - Natural Gas Compressor #5
 Source ID CE1 - Caterpillar G3616 LE Engine #1 (4,735-bhp, 4SLB)
 Source ID CE2 - Caterpillar G3616 LE Engine #2 (4,735-bhp, 4SLB)
 Source ID CE3 - Caterpillar G3616 LE Engine #3 (4,735-bhp, 4SLB)
 Source ID CE4 - Caterpillar G3616 LE Engine #4 (4,735-bhp, 4SLB)
 Source ID CE5 - Caterpillar G3616 LE Engine #5 (4,735-bhp, 4SLB)
 Source ID F004 - Browns Creek Fugitives
 Source ID H-T001 - Harden Well Pad Tank #1
 Source ID H-T002 - Harden Well Pad Tank #2
 Source ID TEG001 - TEG Dehydrator #1 (120-MMSCF/D)
 Source ID TEG002 - TEG Dehydrator #2 (120-MMSCF/D)
 Source ID TEG003 - TEG Dehydrator #3 (120-MMSCF/D)
 Source ID TEG004 - Browns Creek Dehydrator #1

5. Air pollution prevention equipment at the facility includes the following:

Five (5) 3-way Catalytic Converters

**SECTION H. Miscellaneous.**

Four (4) Flares

6. The following equipment is identified as insignificant sources at the Compression Station:

- One (1) 4,000-gallon engine oil (new) tank.
- One (1) 2,000-gallon compressor oil (new) tank.
- One (1) 4,200 gallon waste oil tank.
- Two (2) 2,000 gallon monoethylene (MEG) glycol tanks.
- Two (2) 2,000 gallon triethylene (TEG) glycol tanks.
- One natural gas-fired fuel gas heater rated at 0.38 MMBtu/hr.
- Piping components (Callisto Compressor Station, Browns Creek Station, and Harden Well Pad).

7. A Full Compliance Evaluation was conducted on the Callisto Compressor Station on May 2, 2017. At that time, the emission source Harden Well Pad Tank #2 (Source ID H-T002) was not at the facility. However, since the removal of this source may not be permanent, the condensate tank remains in this permit.

8. PADEP 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.

Other related permits : PA-30-00194A
PA-30-00194B



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