COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

STATE ONLY SYNTHETIC MINOR OPERATING PERMIT

Issue Date: May 26, 2022 Effective Date: June 10, 2022

Expiration Date: May 26, 2027

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

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

State Only Permit No: 26-00588
Synthetic Minor
Federal Tax Id - Plant Code: 26-4578063-28

Owner Information

Name: LAUREL MTN MIDSTREAM OPR LLC
Mailing Address: 2000 COMMERCE DR
PARK PLACE CORP CTR 2
PITTSBURGH, PA 15275-1026

Plant Information

Plant: LAUREL MTN MIDSTREAM OPR LLC/SHAMROCK COMP STA
Location: 26 Fayette County 26918 German Township
SIC Code: 1389 Mining - Oil And Gas Field Services, Nec

Responsible Official

Name: STEVEN HOWARD
Title: VICE PRESIDENT
Phone: (724) 626 - 4337 Email: Steven.h.howard@williams.com

Permit Contact Person

Name: SEAN LEISETH
Title: ENV SPECIALIST III
Phone: (412) 584 - 2447 Email: Sean.leiseth@williams.com

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

SECTION A. Table of Contents

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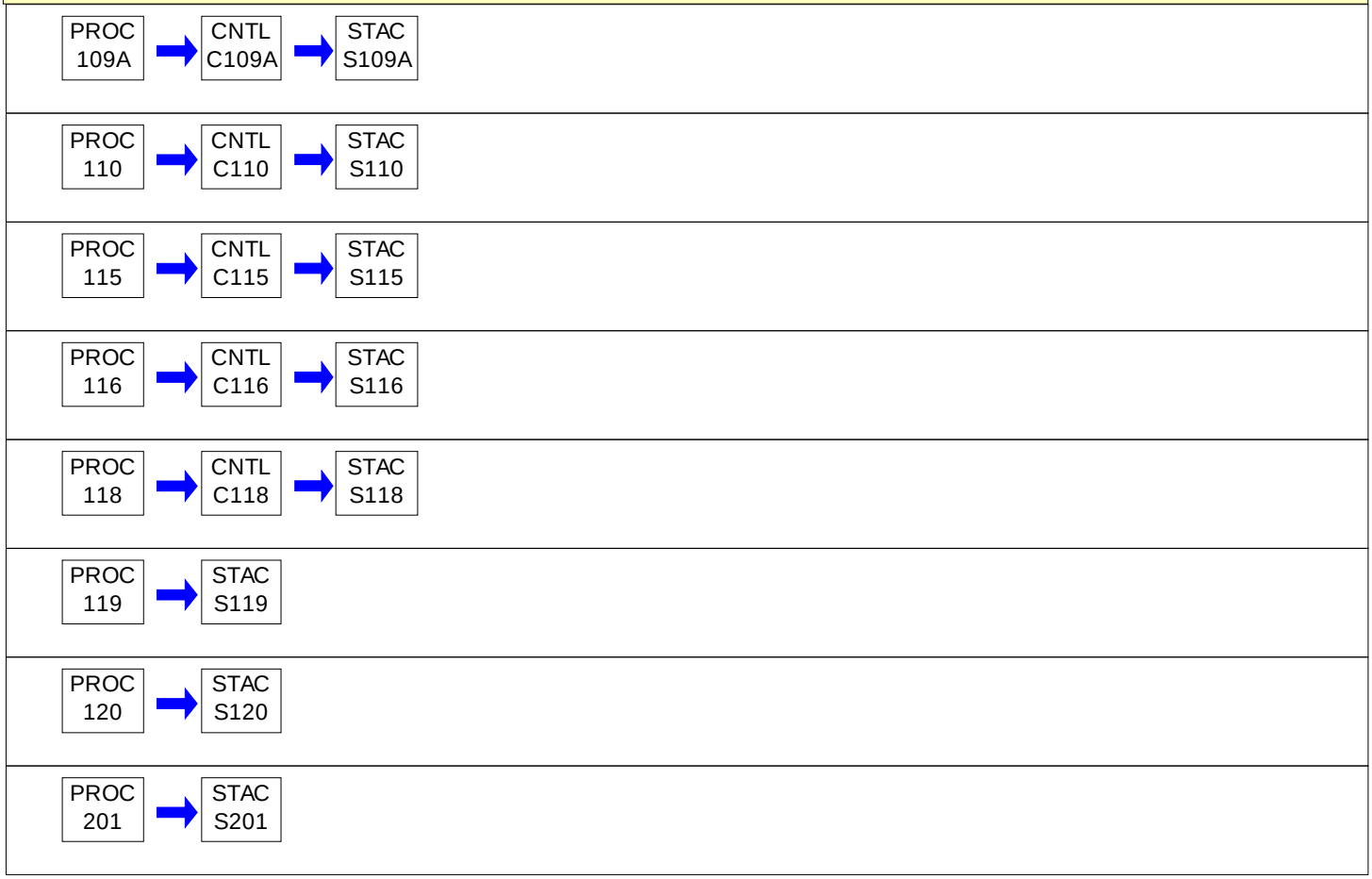
SECTION A. Site Inventory List

Source ID	Source Name	Capacity/Throughput		Fuel/Material
109A	CAT G3516B COMPRESSOR ENGINE #6A (1380 BHP)(CE-06)	11.400	MMBTU/HR	
110	SOLAR MARS 100-16000S TURBINE (15,252 HP) (CT-01)	134.470	MCF/HR	Natural Gas
115	CATERPILLAR G3516B EMERGENCY GENERATOR (1,818 BHP)(EG-01)	15.020	MMBTU/HR	Natural Gas
116	CAT G3516J COMPRESSOR ENGINE (CE-03) (1380 HP)	11.400	MMBTU/HR	Natural Gas
118	SOLAR TITAN 130 -23502S (21,158 HP)(CT-02)	169,000.000	CF/HR	Natural Gas
119	GLYCOL PURIFICATION UNIT ENGINE - GPU-ENG	8.330	MCF/HR	
120	GLYCOL PURIFICATION UNIT HEATER - GPU-HTR	8.330	MCF/HR	
201	REBOILER 01	1.710	MMBTU/HR	
		1.676	MCF/HR	
202	REBOILER 02	1.710	MMBTU/HR	
		1.676	MCF/HR	
301	TANKS/VESSELS		N/A	
		107.600	Gal/HR	
401	TEG DEHYDRATOR 1 (200 MMSCF/DAY) (DHY-01)	8.330	MMCF/HR	
402	TEG DEHYDRATOR 2 (200 MMSCF/DAY)(DHY-02)	8.330	MMCF/HR	
601	CBD - COMPRESSOR ENGINE BLOWDOWN	250.000	CF/HR	
701	FUG - SITE COMPONENT FUGITIVE EMISSIONS	0.700	CF/HR	
702	ECC - ENGINE CRANK CASE EMISSIONS	1,431.500	CF/HR	
703	DGS - SOLAR MARS TURBINE DRY GAS SEAL LEAKS	586.760	CF/HR	
703A	DGS - SOLAR TITAN TURBINE DRY GAS SEAL LEAKS	586.760	CF/HR	
704	CRP - COMPRESSOR ROD PACKING EMISSIONS	138.130	CF/HR	
705	ESU - ENGINE START UP/BLOWDOWN	422.620	CF/HR	
706	TLO - TRUCK LOADOUT	94.300	Gal/HR	
		0.015	Lbs/HR	VOC
707	SSM - SOLAR MARS TURBINE	452.000	CF/HR	
708	SSM - SOLAR TITAN TURBINE	500.000	CF/HR	
801	PIG - PIGGING OPERATIONS	18.260	CF/HR	
C109A	ENGINE 109A OXIDATION CATALYST			
C110	SOLAR MARS SOLONOX COMBUSTION CONTROL			
C115	CATERPILLAR G3516B EMERGENCY GENERATOR OXIDATION CATALYST			
C116	CAT 3516J CE-03 OXIDATION CATALYST			
C118	SOLAR TITAN SOLONOX COMBUSTION CONTROL			
S109A	ENGINE 109A STACK			
S110	SOLAR MARS TURBINE STACK			
S115	CATERPILLAR G3516B EMERGENCY GENERATOR STACK			
S116	CAT G3516J COMPRESSOR ENGINE (CE-03) STACK			
S118	SOLAR TITAN 130 -23502S (21,158 HP)(CT-02) STACK			

SECTION A. Site Inventory List

Source ID	Source Name	Capacity/Throughput	Fuel/Material
S119	GPU ENGINE STACK		
S120	GPU HEATER STACK		
S201	REBOILER 01 STACK		
S202	REBOILER 02 STACK		
S705	ESU/BLOWDOWN EMISSIONS		
Z301	TANKS/VESSELS STACK		
Z601	COMPRESSOR ENGINE BLOWDOWN EMISSIONS		
Z701	FUGITIVE EMISSIONS		
Z702	ECC FUGITIVES		
Z703	DGS SOLAR MARS FUGITIVES		
Z703A	DGS SOLAR TITAN FUGITIVES		
Z704	CRP EMISSIONS		
Z706	TLO EMISSIONS		
Z707	SSM SOLAR MARS TURBINE EMISSIONS		
Z708	SSM SOLAR TITAN TURBINE EMISSIONS		
Z801	PIGGING EMISSIONS		

PERMIT MAPS



PERMIT MAPS

PROC 202	STAC S202
PROC 301	STAC Z301
PROC 401	STAC S201
PROC 402	STAC S202
PROC 601	STAC Z601
PROC 701	STAC Z701
PROC 702	STAC Z702
PROC 703	STAC Z703
PROC 703A	STAC Z703A
PROC 704	STAC Z704
PROC 705	STAC S705
PROC 706	STAC Z706
PROC 707	STAC Z707
PROC 708	STAC Z708
PROC 801	STAC Z801

SECTION B. General State Only 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 in 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 127.446]

Operating Permit Duration.

(a) This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit.

(b) The terms and conditions of the expired permit shall automatically continue pending issuance of a new operating permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit.

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

Permit Renewal.

(a) The permittee shall submit a timely and complete application for renewal of the operating permit to the appropriate Regional Air Program Manager. The application for renewal of the operating permit shall be submitted at least six (6) months and not more than 18 months before the expiration date of this permit.

(b) The application for permit renewal shall include the current permit number, a description of any permit revisions that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.

(c) The permittee shall submit with the renewal application a fee for the processing of the application as specified in 25 Pa. Code § 127.703(b). The fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" and submitted with the fee form to the respective regional office.

(d) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413.

(e) The application for renewal of the operating permit shall also include submission of supplemental compliance review forms in accordance with the requirements of 25 Pa. Code § 127.412(b) and § 127.412(j).

(f) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information as necessary to address any requirements that become applicable to the source after the permittee submits a complete application, but prior to the date the Department takes action on the permit application.

#004 [25 Pa. Code § 127.703]

Operating Permit Fees under Subchapter I.

(a) The permittee shall pay the annual operating permit maintenance fee according to the following fee schedule in either paragraph (1) or (2) in accordance with 25 Pa. Code § 127.703(d) on or before December 31 of each year for the next calendar year.

(1) For a synthetic minor facility, a fee equal to:

(i) Four thousand dollars ($4,000) for calendar years 2021—2025.

(ii) Five thousand dollars ($5,000) for calendar years 2026—2030.

(iii) Six thousand three hundred dollars ($6,300) for the calendar years beginning with 2031.

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(2) For a facility that is not a synthetic minor, a fee equal to:

(i) Two thousand dollars ($2,000) for calendar years 2021—2025.

(ii) Two thousand five hundred dollars ($2,500) for calendar years 2026—2030.

(iii) Three thousand one hundred dollars ($3,100) for the calendar years beginning with 2031.

(b) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

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

Transfer of Operating Permits.

(a) This operating permit may not be transferred to another person, except in cases of transfer-of-ownership that are documented and approved by the Department.

(b) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership of the source shall be treated as an administrative amendment if the Department determines that no other change in the permit is required and a written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee and a compliance review form has been submitted to, and the permit transfer has been approved by, the Department.

(c) This operating permit is valid only for those specific sources and the specific source locations described in this permit.

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

Inspection and Entry.

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

(1) Enter at reasonable times upon the permittee's premises where a source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;

(3) Inspect at reasonable times, any facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;

(4) Sample or monitor, at reasonable times, any substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.

(b) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act or regulations adopted thereunder including denying the Department access to a source at this facility. Refusal of entry or access may constitute grounds for permit revocation and assessment of criminal and/or civil penalties.

(c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

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

Compliance Requirements.

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

SECTION B. General State Only Requirements

(1) Enforcement action

(2) Permit termination, revocation and reissuance or modification

(3) Denial of a permit renewal application

(b) A person may not cause or permit the operation of a source which is subject to 25 Pa. Code Article III unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued for the source is operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.

(c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this State-Only permit. Nothing in this sub-condition shall be construed to create an independent affirmative duty upon the permittee to obtain a predetermination from the Department for physical configuration or engineering design detail changes made by the permittee.

#008 [25 Pa. Code § 127.441]

Need to Halt or Reduce Activity Not a Defense.

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

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

Duty to Provide Information.

(a) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of each source at the facility.

(b) The permittee shall furnish to the Department, in writing, information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to maintain in accordance with this permit.

#010 [25 Pa. Code § 127.461]

Revising an Operating Permit for Cause.

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

(1) The permittee constructs or operates the source subject to the operating permit so that it is in violation of the Air Pollution Control Act, the Clean Air Act, the regulations thereunder, a plan approval, a permit or in a manner that causes air pollution.

(2) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.

(3) The permittee has failed to submit a report required by the operating permit or an applicable regulation.

(4) The EPA determines that the permit is not in compliance with the Clean Air Act or the regulations thereunder.

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

Operating Permit Modifications

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

SECTION B. General State Only Requirements

(b) Administrative Amendments. The permittee shall submit the application for administrative operating permit amendments (as defined in 25 Pa. Code § 127.450(a)), according to procedures specified in § 127.450 unless precluded by the Clean Air Act or its regulations.

(c) Minor Operating Permit Modifications. The permittee shall submit the application for minor operating permit modifications (as defined 25 Pa. Code § 121.1) in accordance with 25 Pa. Code § 127.462.

(d) Significant Operating Permit Modifications. The permittee shall submit the application for significant operating permit modifications in accordance with 25 Pa. Code § 127.465.

(e) The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.

#012 [25 Pa. Code § 127.441]

Severability Clause.

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

#013 [25 Pa. Code § 127.449]

De Minimis Emission Increases.

(a) This permit authorizes de minimis emission increases in accordance with 25 Pa. Code § 127.449 so long as the permittee provides the Department with seven (7) days prior written notice before commencing any de minimis emissions increase. The written notice shall:

(1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.

(2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

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

(c) Except as provided below in (d), the permittee is authorized to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:

(1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.

(2) One ton of NOx from a single source during the term of the permit and 5 tons of NOx at the facility during the term of the permit.

(3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.

(4) Six-tenths of a ton of PM10 from a single source during the term of the permit and 3.0 tons of PM10 at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder or 25 Pa. Code Article III.

(5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder or 25 Pa. Code Article III.

(6) Other sources and classes of sources determined to be of minor significance by the Department.

(d) In accordance with § 127.14, the permittee is authorized to install the following minor sources without the need for a plan approval or permit modification:

SECTION B. General State Only Requirements

(1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.

(2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.

(3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code §123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.

(4) Space heaters which heat by direct heat transfer.

(5) Laboratory equipment used exclusively for chemical or physical analysis.

(6) Other sources and classes of sources determined to be of minor significance by the Department.

(e) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:

(1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (c)(4) and (5) of this permit condition.

(2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.

(3) Violate any applicable requirement of this permit, the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.

(f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.

(g) Except for de minimis emission increases, installation of minor sources made pursuant to this permit condition and Plan Approval Exemptions under 25 Pa. Code § 127.14 (relating to exemptions), the permittee is prohibited from making changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.

(h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

#014 [25 Pa. Code § 127.3]

Operational Flexibility.

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

(1) Section 127.14 (relating to exemptions)

(2) Section 127.447 (relating to alternative operating scenarios)

(3) Section 127.448 (relating to emissions trading at facilities with Federally enforceable emissions caps)

(4) Section 127.449 (relating to de minimis emission increases)

(5) Section 127.450 (relating to administrative operating permit amendments)

SECTION B. General State Only Requirements

(6) Section 127.462 (relating to minor operating permit modifications)

(7) Subchapter H (relating to general plan approvals and general operating permits)

#015 [25 Pa. Code § 127.11]

Reactivation

(a) The permittee may not reactivate a source that has been out of operation or production for at least one year unless the reactivation is conducted in accordance with a plan approval granted by the Department or in accordance with reactivation and maintenance plans developed and approved by the Department in accordance with 25 Pa. Code § 127.11a(a).

(b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

#016 [25 Pa. Code § 127.36]

Health Risk-based Emission Standards and Operating Practice Requirements.

(a) When needed to protect public health, welfare and the environment from emissions of hazardous air pollutants from new and existing sources, the permittee shall comply with the health risk-based emission standards or operating practice requirements imposed by the Department, except as precluded by §§ 6.6(d)(2) and (3) of the Air Pollution Control Act [35 P.S. § 4006.6(d)(2) and (3)].

(b) A person challenging a performance or emission standard established by the Department has the burden to demonstrate that performance or emission standard does not meet the requirements of Section 112 of the Clean Air Act.

#017 [25 Pa. Code § 121.9]

Circumvention.

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

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

Reporting Requirements.

(a) The permittee shall comply with the applicable reporting requirements of the Clean Air Act, the regulations thereunder, the Air Pollution Control Act and 25 Pa. Code Article III including Chapters 127, 135 and 139.

(b) The permittee shall submit reports to the Department containing information the Department may prescribe relative to the operation and maintenance of any air contamination source.

(c) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

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

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

(e) Any records, reports or information submitted to the Department shall be available to the public except for such

SECTION B. General State Only Requirements

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

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

Sampling, Testing and Monitoring Procedures.

(a) The permittee shall comply with the monitoring, recordkeeping or reporting requirements of 25 Pa. Code Chapter 139 and the other applicable requirements of 25 Pa. Code Article III and additional requirements related to monitoring, reporting and recordkeeping required by the Clean Air Act and the regulations thereunder including the Compliance Assurance Monitoring requirements of 40 CFR Part 64, where applicable.

(b) Unless alternative methodology is required by the Clean Air Act and regulations adopted thereunder, sampling, testing and monitoring required by or used by the permittee to demonstrate compliance with any applicable regulation or permit condition shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139.

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

Recordkeeping.

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

(1) The date, place (as defined in the permit) and time of sampling or measurements.

(2) The dates the analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of the analyses.

(6) The operating conditions as existing at the time of sampling or measurement.

(b) The permittee shall retain records of any required monitoring data and supporting information for at least five (5) years from the date of the monitoring, sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.

(c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions.

#021 [25 Pa. Code § 127.441(a)]

Property Rights.

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

#022 [25 Pa. Code § 127.447]

Alternative Operating Scenarios.

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

SECTION B. General State Only Requirements

#023 [25 Pa. Code §135.3]

Reporting

(a) If the facility is a Synthetic Minor Facility, the permittee shall submit by March 1 of each year an annual emissions report for the preceding calendar year. The report shall include information for all active previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported. All air emissions from the facility should be estimated and reported.

(b) A source owner or operator of a Synthetic Minor Facility may request an extension of time from the Department for the filing of an annual emissions report, and the Department may grant the extension for reasonable cause.

#024 [25 Pa. Code §135.4]

Report Format

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

SECTION C. Site Level Requirements

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §121.1 A - L]

Definitions.

Air pollution—The presence in the outdoor atmosphere of any form of contaminant, including, but not limited to, the discharging from stacks, chimneys, openings, buildings, structures, open fires, vehicles, processes or any other source of any smoke, soot, fly ash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, vapors, odors, toxic, hazardous or radioactive substances, waste or other matter in a place, manner or concentration inimical or which may be inimical to public health, safety or welfare or which is or may be injurious to human, plant or animal life or to property or which unreasonably interferes with the comfortable enjoyment of life or property.

 # 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 §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) Not applicable.

(8) Not applicable.

(9) Sources and classes of sources other than those identified in paragraphs (1)-(6), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:

(i) the emissions are of minor significance with respect to causing air pollution; and

(ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

(b) An application form for requesting a determination under either subsection (a)(9) or 129.15(c) is available from the Department. In reviewing these applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, characteristics of emissions, quantity of emissions, and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant shall be required to demonstrate that the requirements of subsections (a)(9) and (c) and 123.2 (relating to fugitive particulate matter) or of the requirements of 129.15(c) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.

SECTION C. Site Level Requirements

 # 004 [25 Pa. Code §123.13]

Processes

(a) Subsections (b) and (c) apply to all processes except combustion units, incinerators and pulp mill smelt dissolving tanks.

(b) N/A

(c) For processes not listed in subsection (b)(1), including but not limited to, coke oven battery waste heat stacks and autogeneous zinc coker waste heat stacks, the following shall apply:

(1) Prohibited emissions. No person may permit the emission into the outdoor atmosphere of particulate matter from any process not listed in subsection (b)(1) in a manner that the concentration of particulate matter in the effluent gas exceeds any of the following:

(i) .04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

(ii) The rate determined by the formula:

A = 6000/E

where:

A = Allowable emissions in grains per dry standard cubic foot, and

E = Effluent gas volume in dry standard cubic feet per minute,

when E is equal to or greater than 150,000 but less than 300,000.

(iii) .02 grain per dry standard cubic foot, when the effluent gas volume is greater than 300,000 dry standard cubic feet per minute.

(2) Allowable emissions. Allowable emissions under this subsection are graphically indicated in Appendix C.

(d) N/A

 # 005 [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.

 # 006 [25 Pa. Code §123.21]

General

(a) This section applies to sources except those subject to other provisions of this article, with respect to the control of sulfur compound emissions.

(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.

 # 007 [25 Pa. Code §123.31]

Limitations

The Owner/Operator 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 of the property of the Facility.

 # 008 [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

SECTION C. Site Level Requirements

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.

 # 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions from all air contamination sources and associated air cleaning devices as authorized in this oeprating permit, on the effective date (to be determined upon final TVOP issuance) of this operating permit, shall not exceed:

Nitrogen Oxides (NOx) - 71.03 tons on a 12-month rolling sum basis.
Carbon Monoxide (CO) - 71.82 tons on a 12-month rolling sum basis.
Volatile Organic Compounds (VOC, w/HCHO) - 24.73 tons on a 12-month rolling sum basis.
Particulate Matter <10 microns (PM10) - 14.24 tons on a 12-month rolling sum basis.
Sulfur Dioxides (SO2) - 4.51 tons on a 12-month rolling sum basis.
Total Hazardous Air Pollutants (HAP) - 9.51 tons on a 12-month rolling sum basis.
Formaldehyde (HCHO) - 4.74 tons on a 12-month rolling sum basis.
Greenhouse Gases (CO2e) - 167,501 tons on a 12-month rolling sum basis.

 # 010 [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) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.

(3) A fire set for the prevention and control of disease or pests, when approved by the Department.

(4) A fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.

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

SECTION C. Site Level Requirements

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

(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) of this section.

(ii) Authorization for open burning under this paragraph does not apply to clearing and grubbing wastes transported from an air basin for disposal outside of an air basin.

(4) During an air pollution episode, open burning is limited by Chapter 137 (relating to air pollution episodes) and shall cease as specified in such chapter.

II. TESTING REQUIREMENTS.

 # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Performance Testing for Source 116 (CE-03), Source 109A (CE-06), Source 110 (CT-01), and Source 118 (CT-02) shall be conducted as follows:

a. The Owner/Operator shall submit three (3) copies of a pre-test protocol to the Department for review at least 90 days prior to the performance of any EPA reference method stack test. The Owner/Operator shall submit three copies of a one-time protocol to the Department for review for the use of a portable analyzer and may repeat portable analyzer testing without additional protocol approvals provided that the same method and equipment are used. All proposed performance test methods shall be identified in the pre-test protocol and approved by the Department prior to testing.

SECTION C. Site Level Requirements

b. The Owner/Operator shall notify the Regional Air Quality Manager at least 15 days prior to any performance test so that an observer may be present at the time of the test. 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 40 CFR Part 60.8(a), a complete test report 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.

d. Pursuant to 25 Pa. Code §139.53(b) a complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or non-compliance with all applicable plan approval 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. Plan Approval number(s) and condition(s) which are the basis for the evaluation.
3. Summary of results with respect to each applicable plan approval condition.
4. Statement of compliance or non-compliance with each applicable plan approval condition.

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

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

g. Pursuant to 25 Pa. Code §§139.53(a)(1) and 139.53(a)(3), all submittals, besides notifications, shall be accomplished through PSIMS*Online available through https://www.depgreenport.state.pa.us/ecomm/Login.jsp when it becomes available. 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.

h. The permittee shall ensure 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.

 # 012 [25 Pa. Code §123.43]

Measuring techniques

Visible emissions may be measured using either of the following:

(1) A device approved by the Department and maintained to provide accurate opacity measurements.

(2) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

 # 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

A facility-wide inspection shall be conducted at a minimum of once each day that the facility is operated by the Owner/Operator. The facility-wide inspection shall be conducted for the presence of the following:

a. Visible stack emissions;
b. Fugitive emissions; and
c. Potentially objectionable odors at the property line.

SECTION C. Site Level Requirements

These observations are to ensure continued compliance with source-specific visible emission limitations, fugitive emissions prohibited under 25 Pa. Code §§123.1 or 123.2, and malodors prohibited under 25 Pa. Code §123.31. Observations for visible stack emissions shall be conducted during daylight hours and all observations shall be conducted while sources are in operation. If visible stack emissions, fugitive emissions, or potentially objectionable odors are apparent, the Owner/Operator shall take corrective action.

 # 014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The owner or operator of the natural gas compression facility shall, at a minimum, on a monthly basis perform a leak detection and repair program that includes audible, visual, and olfactory (AVO) inspections for visible stack emissions, fugitive emissions, and potentially objectionable odors.

IV. RECORDKEEPING REQUIREMENTS.

 # 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

All logs and required records shall be maintained on site for a minimum of five (5) years and shall be made available to the Department upon request.

 # 016 [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 engine, dehydration unit, and turbine operate.

b. The amount of fuel used per month by each engine and turbine.

c. Records including a description of testing methods, results, all turbine and engine operating data collected during tests, and a copy of the calculations performed to determine compliance with emission standards for each turbine and engine.

d. Copies of the report that demonstrates that the turbine was operating at maximum routine operating conditions and within plus or minus 25 percent of 100 percent peak load during performance testing.

e. Copies of the manufacturer's recommended maintenance schedule for each turbine, engine, and catalyst.

f. Records of any maintenance conducted on each turbine, engine, dehydration unit ,and catalyst.

g. The total sulfur content of the natural gas being fired in the turbines or the demonstration that the natural gas does not exceed potential sulfur emissions of 0.060 lb SO2/MMBtu of heat input consistent with 40 CFR §60.4365.

h. Records of a fractional gas analysis performed at least annually on the inlet natural gas to the dehydrators to the facility.

i. All logs and required records must be maintained onsite or at the nearest local field office for a minimum of five (5) years and may be maintained in electronic format and shall be made available to the Department upon request.

j. Records of reciprocating compressor packing maintenance intervals.

k. The dehydrator VOC and benzene emissions using GRI-GLYCalc data from no less recent than the previous year if the natural gas composition has changed or an alternative method approved by the Department.

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

m. Records of any leak detected and associated repair activity through the leak detection and repair or maintenance program.

SECTION C. Site Level Requirements

 # 017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Records of each facility-wide inspection for visible stack emissions, fugitive emissions, or potentially objectionable odors shall be maintained in a log and at the minimum include the date, time, name, and title of the observer, along with any corrective action taken as a result. Records shall be maintained for a minimum of five (5) years and be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

 # 018 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) The Owner or operator of a natural gas compressor station, processing plant, or transmission station shall submit to the Air Program Manager of the appropriate DEP Regional Office all requests, reports, applications, submittals, and other communications concerning applicable federal NSPS and NESHAP.

(b) In accordance with 40 CFR §§ 60.4 and 63.10, copies of all requests, reports, applications, submittals, and other communications shall also be submitted to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI) accessible at https://cdx.epa.gov unless electronic reporting is not available, in which case a copy shall be sent to the following address:

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

(c) The annual report is required to be submitted either in electronic format, by hand-delivery, courier, or sent by certified mail, return receipt requested, to the Air Program Manager of the appropriate DEP Regional Office, the reporting period specified by the owner/operator shall be no later than one year from the start of operations of the facility, unless otherwise approved by the Department. The initial and subsequent annual reports shall be submitted within 60 days of the end of the reporting periods. General information required on all reports includes:

i. Company Name;
ii. Facility Site Name;
iii. The Operating Permit authorization number;
iv. Either:

(A) The address of the site; or
(B) A description of the site and the location using latitude and longitude coordinates of the site in decimal degrees to an accuracy and precision of 5 decimal degrees using the North American Datum of 1983;

(v) The beginning and ending dates of the reporting period;
(vi) A Certification, which includes:

(A) A list of noncomplying activities
(B) A statement noting: “During calendar year 20__ has been in compliance with all applicable terms and conditions of Operating Permit TV-26-00588, including monitoring, recordkeeping and reporting except for those noncomplying activities on the attached list.”
(C) The statement: “Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.”; and
(D) The signature of the certifying Responsible Official;

(vii) Identification of each source included in the report;
(viii) A summary from Laurel Mountain Midstream’s Environmental Management System which is the basis of the certification, and the compliance status of the sources, currently and over the reporting period as identified in this Operating Permit.

SECTION C. Site Level Requirements

(ix) The records of the facility's emissions to demonstrate compliance with this Operating Permit.
(x) The records of each monitoring survey conducted during the reporting period shall be included in the annual report.

 # 019 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) The permittee shall report malfunctions, emergencies or incidents of excess emissions to the Department. A malfunction is any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. An emergency is any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator of a facility which requires immediate corrective action to restore normal operation and which causes the emission source to exceed emissions, due to unavoidable increases in emissions attributable to the situation. An emergency shall not include situations caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

(b) When the malfunction, emergency or incident of excess emissions poses an imminent danger to the public health, safety, welfare, or environment, it shall be reported to the Department and the County Emergency Management Agency by telephone within one (1) hour after the discovery of the malfunction, emergency or incident of excess emissions. The owner or operator shall submit a written or emailed report of instances of such malfunctions, emergencies or incidents of excess emissions to the Department within three (3) business days of the telephone report.

(c) The report shall describe the following:

1. Name, permit or authorization number, and location of the facility,
2. Nature and cause of the malfunction, emergency or incident,
3. Date and time when the malfunction, emergency or incident was first observed,
4. Expected duration of excess emissions,
5. Estimated rate of emissions,
6. Corrective actions or preventative measures taken.

(d) Any malfunction, emergency or incident of excess emissions that is not subject to the notice requirements of paragraph (b) of this condition shall be reported to the Department by telephone within 24 hours (or by 4:00 PM of the next business day, whichever is later) of discovery and in writing or by e-mail within five (5) business days of discovery. The report shall contain the same information required by paragraph (c), and any permit specific malfunction reporting requirements.

(e) During an emergency an owner or operator may continue to operate the source at their discretion provided they submit justification for continued operation of a source during the emergency and follow all the notification and reporting requirements in accordance with paragraphs (b)-(d), as applicable, including any permit specific malfunction reporting requirements.

(f) Reports regarding malfunctions, emergencies or incidents of excess emissions shall be submitted to the appropriate DEP Regional Office Air Program Manager.

(g) Any emissions resulted from malfunction or emergency are to be reported in the annual emissions inventory report, if the annual emissions inventory report is required by permit or authorization.

 # 020 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator of each stationary source emitting criteria pollutants (including but not limited to NOx, CO, VOC [including formaldehyde], SOx, PM10, and PM2.5), HAP, greenhouse gases (GHG) in the form of CO2 equivalent (CO2e), and GHG on a mass-basis shall provide the Department with a statement, in a form as the Department may prescribe, for classes or categories of sources, showing the actual emissions of criteria pollutants, HAP (per the Department's Emissions Inventory Reporting Instructions), GHG in the form of CO2e, and GHG on a mass-basis from that source for each reporting period. A description of the method used to calculate the emissions and the time period over which the calculation is based shall be included. The statement shall also contain a certification by a company officer or the plant manager that the information contained in the statement is accurate.

SECTION C. Site Level Requirements

 # 021 [25 Pa. Code §135.3]

Reporting

In accordance with 25 Pa. Code § 135.3(d), the owner or operator of a facility shall submit to the Department via AES*Online or AES*XML at www.depgreenport.state.pa.us/ by March 1st of each year, a facility inventory report for the preceding calendar year for all sources regulated under this Operating Permit. The inventory report shall include all emissions information for all sources operated during the preceding calendar year. Emissions data including, but not limited, to the following shall be reported:

i. NOx;
ii. CO;
iii. SOx;
iv. PM10;
v. PM2.5;
vi. VOC;
vii. Speciated HAP including, but not limited to, benzene, ethyl benzene, formaldehyde, n-hexane, toluene, isomers and mixtures of xylenes, and 2,2,4-trimethylpentane;
viii. Total HAP;
ix. CO2;
x. CH4; and
xi. N2O

 # 022 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

Subpart A - General Provisions

Address.

In accordance with 40 CFR §§60.4, 63.10 and 63.13; copies of all requests, reports, applications, submittals and other communications regarding affected sources shall be forwarded to the Department at the addresses listed below unless otherwise noted.

PADEP
Air Quality Program
400 Waterfront Drive
Pittsburgh, PA 15222-4745

 # 023 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.7]

Subpart A - General Provisions

Notification and record keeping.

The Owner/operator shall provide EPA with the notifications required by 40 CFR § 60.7. Required notifications may include but are not necessarily limited to: date of commencement of construction (within 30 days after starting construction), actual start-up date (within 15 days after equipment start-up), physical or operational changes which may increase the emission rate of any air pollutant to which a standard applies (60 days or as soon as practicable before equipment start-up), and opacity observations (within 30 days).

VI. WORK PRACTICE REQUIREMENTS.

 # 024 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

(c) A person responsible for any source specified in subsections (a)(1) -- (6) or (9) shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

(1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.

(2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.

SECTION C. Site Level Requirements

(3) Paving and maintenance of roadways.

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

(d) Not applicable.

 # 025 [25 Pa. Code §127.441]

Operating permit terms and conditions.

All air contamination sources and air cleaning devices authorized under this Operating Permit shall be operated per the manufacturer's specifications and maintained according to the manufacturer's recommended maintenance schedule and in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunctions.

VII. ADDITIONAL REQUIREMENTS.

 # 026 [25 Pa. Code §127.35]

Maximum achievable control technology standards for hazardous air pollutants.

(a) This section establishes the process that the Department will follow in establishing maximum achievable control technology standards in plan approvals.

(b) The regulations establishing performance or emission standards promulgated under section 112 of the Clean Air Act (42 U.S.C.A. 7412) at 40 CFR Part 63 (relating to National Emission Standards for Hazardous Air Pollutants for Source Categories) are incorporated by reference into the Department's plan approval program. After the effective date of the performance or emission standard, new, reconstructed, modified and existing sources shall comply with the performance or emission standards pursuant to the compliance schedule established under section 112 of the Clean Air Act and the regulations thereunder.

(c) If the Administrator of the EPA has not promulgated a standard to control the emissions of hazardous air pollutants for a category or subcategory of major stationary sources under section 112 of the Clean Air Act pursuant to the schedule established under section 112(c) of the Clean Air Act, the Department will establish a performance or emission standard on a case-by-case basis for individual sources or a category of sources for those major stationary sources.

(d) The Department will establish performance or emission standards as required by section 112(g) of the Clean Air Act for the construction, reconstruction or modification of sources.

(e) The standards established under this section will be incorporated into the plan approval of each source within the category or subcategory for which a maximum achievable control technology requirement has been established. The Department has the authority to require, in the plan approval, reasonable monitoring, recordkeeping and reporting requirements for sources which emit hazardous air pollutants.

(f) A person challenging the performance or emission standards established by the Department has the burden to demonstrate that the performance or emission standard does not meet the requirements of section 112 of the Clean Air Act.

(g) In addition to the requirements of this section, the Department is authorized to require that new sources demonstrate in the plan approval application that the source will reduce or control emissions of air pollutants, including hazardous air pollutants, by using best available technology.

(h) The early emissions reduction program authorized under section 112(i)(5) of the Clean Air Act is incorporated by reference into the Department's plan approval and operating permit program.

SECTION C. Site Level Requirements

 # 027 [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 Operating Permit may be in excess of the limitations specified in 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 Pa. Code Title 25 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.

 # 028 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Facility is subject to New Source Performance Standards from 40 CFR Part 60 Subparts A, GG, JJJJ, KKKK and OOOOa, National Emission Standards for Hazardous Air Pollutants from 40 CFR Part 63 Subpart HH, ZZZZ, and 40 CFR Part 98.

VIII. COMPLIANCE CERTIFICATION.

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

IX. COMPLIANCE SCHEDULE.

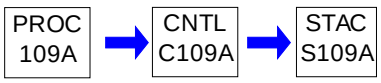
No compliance milestones exist.

SECTION D. Source Level Requirements

Source ID: 109A Source Name: CAT G3516B COMPRESSOR ENGINE #6A (1380 BHP)(CE-06)

Source Capacity/Throughput: 11.400 MMBTU/HR

Conditions for this source occur in the following groups: G102
G103
G104
G105



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

This source is subject to the conditions of 40 CFR Part 60 Subpart JJJJ, however, the BAT determination and emission limitations established for this source supersede the less stringent requirements of this Subpart.

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

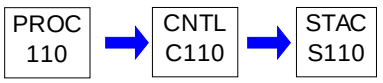
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 110 Source Name: SOLAR MARS 100-16000S TURBINE (15,252 HP) (CT-01)

Source Capacity/Throughput: 134.470 MCF/HR Natural Gas

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pollutant	Operating Scenario	Emission Rate
Nitrogen Oxides	Normal	15 ppmv @ 15% O2
Nitrogen Oxides	Normal	7.48 lb/hr
Nitrogen Oxides	Normal	29.7 tpy
Nitrogen Oxides	Combined SS & Low T	3.12 tpy
Carbon Monoxide	Normal	25 ppmv @ 15% O2
Carbon Monoxide	Normal	7.58 lb/hr
Carbon Monoxide	Normal	30.13 tpy
Carbon Monoxide	Combined SS & Low T	9.82 tpy
Volatile Organic Compounds	Normal	25 ppmv @ 15% O2
Volatile Organic Compounds	Normal	0.868 lb/hr
Volatile Organic Compounds	Normal	3.45 tpy
Volatile Organic Compounds	Combined SS & Low T	0.44 tpy

Limit the turbine's time spent at idle during startup or shutdown to a period appropriate for the operation of the turbine and air pollution control equipment consistent with good air pollution control practices, not to exceed 30 minutes, during which time the "Normal" emissions standards, above, do not apply. Operate the turbine and air pollution control equipment consistent with good air pollution control practices during periods of low ambient air temperature (at or below 0 °F), during which time the "Normal" emissions standards, above, do not apply.

 # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Visible emissions from the turbine shall not exceed 10% at any time.

 # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The output power rating of the Solar Mars 100 turbine has been reduced from 16,847 bhp to 15,252 bhp in order to reflect operation of the source at an average ambient temperature of 50°F.

 # 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4330]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What emission limits must I meet for sulfur dioxide (SO2)?

The Solar Mars turbine shall meet one of the following sulfur dioxide (SO2) limits:

a. The Owner/Operator shall not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO2 in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour

SECTION D. Source Level Requirements

(lb/MWh))gross output;

b. The Owner/Operator shall not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO2/J (0.060 lb/MMBtu) heat input.

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

 # 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4360]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How do I determine the total sulfur content of the turbine's combustion fuel?

The Owner/Operator shall monitor the total sulfur content of the natural gas being fired in the turbine using total sulfur methods described in 40 CFR 60.4415. Alternatively, if the total sulfur content of the natural gas during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17), which measure the major sulfur compounds, may be used.

 # 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4365]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How can I be exempted from monitoring the total sulfur content of the fuel?

The Owner/Operator may elect not to monitor the total sulfur content of the natural gas combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. One of the following sources of information must be used to make the required demonstration:

a. The fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel, has potential sulfur emissions of less than 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input; or

b. Representative fuel sampling data which shows that the sulfur content of the fuel does not exceed 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of 40 CFR Part 75 Appendix D is required.

IV. RECORDKEEPING REQUIREMENTS.

 # 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4370]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How often must I determine the sulfur content of the fuel?

If sulfur content of the natural gas is not demonstrated using options in 40 CFR §60.4365, sulfur content of the natural gas must be determined and recorded once per unit operating day.

V. REPORTING REQUIREMENTS.

 # 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4375]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What reports must I submit?

The Owner/Operator shall submit the following turbine reports in accordance with 40 CFR §60.4375:

a. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, you must submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

SECTION D. Source Level Requirements

b. For each affected unit that performs annual performance tests in accordance with §60.4340(a), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

 # 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4395]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

When must I submit my reports?

All reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period.

 # 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4415]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How do I conduct the initial and subsequent performance tests for sulfur?

Turbine initial and subsequent SO2 testing shall be performed as follows:

a. If the Owner/Operator elects to monitor the total content of the natural gas being fired in the turbine, the Owner/Operator must conduct an initial performance test, as required in §60.8. Subsequent SO2 performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). There are three methodologies that you may use to conduct the performance tests.

1. If you choose to periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 (incorporated by reference, see §60.17) for natural gas or ASTM D4177 (incorporated by reference, see §60.17) for oil. Alternatively, for oil, you may follow the procedures for manual pipeline sampling in section 14 of ASTM D4057 (incorporated by reference, see §60.17). The fuel analyses of this section may be performed either by you, a service contractor retained by you, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using:

i. N/A

ii. For gaseous fuels, ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17).

2. Measure the SO2 concentration (in parts per million (ppm)), using EPA Methods 6, 6C, 8, or 20 in appendix A of this part. In addition, the American Society of Mechanical Engineers (ASME) standard, ASME PTC 19-10-1981-Part 10, "Flue and Exhaust Gas Analyses," manual methods for sulfur dioxide (incorporated by reference, see §60.17) can be used instead of EPA Methods 6 or 20. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of this part, and measure and record the electrical and thermal output from the unit. Then use the following equation to calculate the SO2 emission rate:

E = (1.664x10^-7 x (SO2)c x Qstd) / P

Where:

E = SO2 emission rate, in lb/MWh

1.664 × 10-7= conversion constant, in lb/dscf-ppm

(SO2)c= average SO2 concentration for the run, in ppm

Qstd= stack gas volumetric flow rate, in dscf/hr

P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to §60.4350(f)(2); or

SECTION D. Source Level Requirements

3. Measure the SO2 and diluent gas concentrations, using either EPA Methods 6, 6C, or 8 and 3A, or 20 in appendix A of this part. In addition, you may use the manual methods for sulfur dioxide ASME PTC 19-10-1981-Part 10 (incorporated by reference, see §60.17). Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of this part to calculate the SO2 emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in §60.4350(f) to calculate the SO2 emission rate in lb/MWh.

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

 # 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4385]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How are excess emissions and monitoring downtime defined for SO2?

Periods of excess emissions and monitor downtime for SO2 are defined as follows:

a. For samples of natural gas obtained using daily sampling or flow proportional sampling, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

b. A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

 # 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4420]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

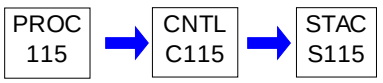
What definitions apply to this subpart?

All terms used in 40 CFR Part 60 Subpart KKKK shall have the meaning given in 40 CFR §60.4420 or else in the Clean Air Act and 40 CFR Part 60 Subpart A.

SECTION D. Source Level Requirements

Source ID: 115 Source Name: CATERPILLAR G3516B EMERGENCY GENERATOR (1,818 BHP)(EG-01)

Source Capacity/Throughput: 15.020 MMBTU/HR Natural Gas



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Visible emissions from the Caterpillar G3516B emergency generator 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.

 # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Operation of the Caterpillar G3516B emergency generator shall not exceed 100 hours of scheduled non emergency service per rolling 12-month period.

 # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions from the Caterpillar G3516B emergency generator shall be limited to the following:

AAt rated bhp and speed:
a. NOx – 0.59 g/bhp-hr
b. CO – 0.18 g/bhp-hr
c. NMNEHC – 0.24 g/bhp-hr*
d. VOC – 0.38 g/bhp-hr*

At all operating conditions excluding startup, shutdown, and malfunction:
a. NOx – 2.36 lb/hr
b. CO – 0.70 lb/hr
c. NMNEHC – 0.96 lb/hr*
d. VOC – 1.50 lb/hr*

 # 004 [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?

Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

SECTION D. Source Level Requirements

II. TESTING REQUIREMENTS.

 # 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall perform NOx, CO, and VOC emission tests upon the Caterpillar G3516B emergency generator at the Facility according to the requirements of 40 CFR §§60.4243 and 60.4244. Initial emission testing is required within 180 days of startup of the emergency generator.

Subsequent testing shall be performed every 8,760 hours or 3 years, whichever comes first.

Portable analyzer testing according to ASTM Methods D6522-00 and D6348-03, or other methods included in Table 2 to Subpart JJJJ of Part 60 are acceptable for testing every 8,760 hours or 3 years.

 # 006 [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?

As an Owner/Operator of stationary SI ICE subject to the emission standards specified in §60.4233(e), you must demonstrate compliance according to one of the methods specified in paragraphs a. and b. of this condition.

a. Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR §60.4243(a).
b. 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.

 # 007 [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 (g) of this section.

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

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

Where:

ER = Emission rate of NOx in g/HP-hr

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

SECTION D. Source Level Requirements

1.912×10-3 = Conversion constant for ppm NOx to grams per standard cubic meter at 20 degrees Celsius.

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

T = Time of test run, in hours.

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

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

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

Where:

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

Cd= Measured CO concentration in ppmv.

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

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

T = Time of test run, in hours.

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

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

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

Where:

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

Cd= VOC concentration measured as propane in ppmv.

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

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

T = Time of test run, in hours.

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

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

RFi = CMi/CAi (Eq. 4)

SECTION D. Source Level Requirements

Where:

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

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

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

Cicorr = RFi*Cimeas (Eq. 5)

Where:

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

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

Cpeq = 0.6098*Cicorr (Eq. 6)

Where:

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

 # 008 [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.
i. All notifications submitted to comply with this subpart and all documentation supporting any notification.
ii. Maintenance conducted on the engine.
iii. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
iv. 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.
i. Name and address of the owner or operator;

SECTION D. Source Level Requirements

ii. The address of the affected source;
iii. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
iv. Emission control equipment; and
v. 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.

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

 # 009 [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?

The Caterpillar G3516B emergency generator is subject to the requirements under 40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

 # 010 [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?

All terms used in 40 CFR Part 60 Subpart JJJJ shall have the meaning given in 40 CFR §60.4248 or else in the Clean Air Act and 40 CFR Part 60 Subpart A.

 # 011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Am I subject to this subpart?

The Caterpillar G3516B emergency generator is subject to 40 CFR Part 60, Subpart ZZZZ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

 # 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What parts of my plant does this subpart cover?

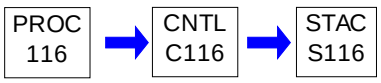
The Caterpillar G3516B emergency generator is a new stationary RICE located at an area source. This emergency generator must meet the requirements of 40 CFR Part 63 Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart JJJJ. No further requirements apply for this emergency generator under 40 CFR Part 63 Subpart ZZZZ.

SECTION D. Source Level Requirements

Source ID: 116 Source Name: CAT G3516J COMPRESSOR ENGINE (CE-03) (1380 HP)

Source Capacity/Throughput: 11.400 MMBTU/HR Natural Gas

Conditions for this source occur in the following groups: G102
G103
G104
G105



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

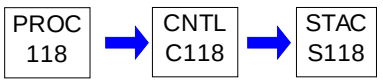
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 118 Source Name: SOLAR TITAN 130 -23502S (21,158 HP)(CT-02)

Source Capacity/Throughput: 169,000.000 CF/HR Natural Gas

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

To demonstrate that the vendor's guarantee assures compliance with the total PM emission limits. The owner or operator of the turbine shall:

(i) Ensure the turbine meets the visible emissions standards, as determined by the methods described in 25 Pa. Code § 123.43, by not exceeding the following limitations:

(A) Equal to or greater than 10% for a period or periods aggregating more than three minutes in any one hour; and
(B) Equal to or greater than 30% at any time.

(ii) Install, operate, and maintain a non-resettable hour meter.

(iii) Limit the turbine's time spent at idle during startup or shutdown to a period appropriate for the operation of the turbine and air pollution control equipment consistent with good air pollution control practices, not to exceed 30 minutes, during which time the emissions standards in #002 do not apply.

(iv) Operate the turbine and air pollution control equipment consistent with good air pollution control practices during periods of low ambient air temperature (at or below 0 °F), during which time the emissions standards in #002 do not apply.

(v) Conduct performance tests for the turbine within 180 days of initial startup and periodic monitoring for the turbine every 2,500 hours of operation. The Department may alter the frequency of periodic monitoring based on the test results. The frequency of periodic monitoring may be altered upon request of the owner or operator with written Departmental approval.

 # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Visible emissions from the Solar Titan 130 turbine stack shall not be:

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.

Compliance with this limit ensures compliance with 25 Pa. Code §123.41.

 # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emission rates from the Solar Titan 130 turbine shall be limited as follows:

NOx Normal Operating Condition = 9.0 ppmv @15%O2
NOX Normal Operating Condition = 6.0 lb/hr
NOx Normal Operating Condition = 24.3 TPY
NOx Start Up, Shutdown = 0.2 TPY

SECTION D. Source Level Requirements

CO Normal Operating Condition = 10.0 ppmv @15%O2
CO Normal Operating Condition = 4.1 lb/hr
CO Normal Operating Condition = 16.5 TPY
CO Start Up, Shutdown , Low Temp = 7.6 TPY

VOC Normal Operating Condition = 5.0 ppmv @15%O2
VOC Normal Operating Condition = 1.2 lb/hr
VOC Normal Operating Condition = 4.71 TPY
VOC Start Up, Shutdown= 0.9 TPY

PM10 Normal Operating Condition = 1.8
PM10 Normal Operating Condition = 7.6 TPY
PM10 Start Up, Shutdown = Not defined

PM2.5 Normal Operating Condition = 1.8
PM2.5 Normal Operating Condition = 7.6 TPY
PM2.5 Start Up, Shutdown= Not Defined

For purposes of this condition, the "normal" operating scenario excludes startup, shutdown, and low temperature operating scenarios. Startup is defined as beginning when air contaminants begin to be emitted to the atmosphere, and shall have a duration no greater than 30 minutes. Shutdown is defined as ending when contaminants are no longer being emitted to the atmosphere, and shall have a duration no greater than 30 minutes. Low temperature is defined as less than 0°F.

 # 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4305]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

Does this subpart apply to my stationary combustion turbine?

The Solar Titan 130 turbine, approved to be installed under this plan approval, is subject to the requirements under 40 CFR Part 60, Subpart KKKK – Standards of Performance for Stationary Combustion Turbines.

II. TESTING REQUIREMENTS.

 # 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Subsequent turbine NOx testing shall be performed as follows:

a. There are two general methodologies that you may use to conduct the performance tests. For each test run:

1) Measure the NOx concentration (in parts per million (ppm)), using EPA Method 7E or EPA Method 20 in appendix A of this part. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of this part, and measure and record the electrical and thermal output from the unit. Then, use the following equation to calculate the NOX emission rate:

Where:
E = NOx emission rate, in lb/MWh
1.194 × 10-7= conversion constant, in lb/dscf-ppm
(NOx)c= average NOx concentration for the run, in ppm
Qstd= stack gas volumetric flow rate, in dscf/hr
P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to §60.4350(f)(2); or

2) Measure the NOx and diluent gas concentrations, using either EPA Methods 7E and 3A, or EPA Method 20 in appendix A of this part. Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of this part to calculate the NOx emission rate in

SECTION D. Source Level Requirements

lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in §60.4350(f) to calculate the NOx emission rate in lb/MWh.

b. Sampling traverse points for NOx and (if applicable) diluent gas are to be selected following EPA Method 20 or EPA Method 1 (non-particulate procedures), and sampled for equal time intervals. The sampling must be performed with a traversing single-hole probe, or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.

c. Notwithstanding paragraph (a)(2) of this condition, you may test at fewer points than are specified in EPA Method 1 or EPA Method 20 in appendix A of this part if the following conditions are met:

1) You may perform a stratification test for NOx and diluent pursuant to
i. [Reserved], or
ii. The procedures specified in section 6.5.6.1(a) through (e) of appendix A of part 75 of this chapter.

2) Once the stratification sampling is completed, you may use the following alternative sample point selection criteria for the performance test:

i. If each of the individual traverse point NOx concentrations is within ±10 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±5ppm or ±0.5 percent CO2(or O2) from the mean for all traverse points, then you may use three points (located either 16.7, 50.0 and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The three points must be located along the measurement line that exhibited the highest average NOx concentration during the stratification test; or
ii. N/A
iii. For turbines with a NOx standard less than or equal to 15 ppm @ 15% O2, you may sample at a single point, located at least 1 meter from the stack wall or at the stack centroid if each of the individual traverse point NOx concentrations is within ±2.5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±1ppm or ±0.15 percent CO2(or O2) from the mean for all traverse points.

d. The performance test must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. You may perform testing at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice. You must conduct three separate test runs for each performance test. The minimum time per run is 20 minutes.

1) N/A
2) N/A
3) N/A
4) Compliance with the applicable emission limit in §60.4320 must be demonstrated at each tested load level. Compliance is achieved if the three-run arithmetic average NOx emission rate at each tested level meets the applicable emission limit in §60.4320.
5) N/A
6) The ambient temperature must be greater than 0 °F during the performance test.

 # 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall perform NOx, CO, VOC, HCHO, and PM10 emission tests upon the Solar Titan 130 turbine according to the requirements of 25 Pa. Code Chapter 139. Subsequent NOx, CO, HCHO, and VOC testing shall be performed no less often than once every two years thereafter. Subsequent PM10 testing shall be performed at every SOOP renewal. Each emission test shall be performed using EPA Method stack testing.

 # 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4340]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How do I demonstrate continuous compliance for NOX if I do not use water or steam injection?

Turbines subject to an emission limit under 40 CFR 60 Subpart KKKK shall perform annual performance tests for NOx in

accordance with 40 CFR §60.4400 to demonstrate compliance with the applicable NOx emission limit from Table 1 of 40 CFR 60 Subpart KKKK. If the NOx emission result from the performance test is less than or equal to 75% of the applicable limit then the frequency of subsequent testing may be reduced from annually to once every two years. Demonstrating compliance with the more stringent limit will also demonstrate a NOx emission rate of less than 75% of the applicable Subpart KKKK limit of 25 ppm. A turbine NOx emissions testing schedule of once within 180 days of startup of the turbine and once every two years thereafter has been added as an operating permit condition.

 # 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4415]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How do I conduct the initial and subsequent performance tests for sulfur?

Subsequent SO2 performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). There are three methodologies that you may use to conduct the performance tests.

(1) If you choose to periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 (incorporated by reference, see § 60.17) for natural gas or ASTM D4177 (incorporated by reference, see § 60.17) for oil. Alternatively, for oil, you may follow the procedures for manual pipeline sampling in section 14 of ASTM D4057 (incorporated by reference, see § 60.17). The fuel analyses of this section may be performed either by you, a service contractor retained by you, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using:

(i) For liquid fuels, ASTM D129, or alternatively D1266, D1552, D2622, D4294, or D5453 (all of which are incorporated by reference, see § 60.17); or
(ii) For gaseous fuels, ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see § 60.17).

(2) Measure the SO2 concentration (in parts per million (ppm)), using EPA Methods 6, 6C, 8, or 20 in appendix A of this part. In addition, the American Society of Mechanical Engineers (ASME) standard, ASME PTC 19-10-1981-Part 10, “Flue and Exhaust Gas Analyses,” manual methods for sulfur dioxide (incorporated by reference, see § 60.17) can be used instead of EPA Methods 6 or 20. For units complying with the output based standard, concurrently measure the stack gas flow rate, using EPA Methods 1 and 2 in appendix A of this part, and measure and record the electrical and thermal output from the unit. Then use the following equation to calculate the SO2 emission rate:

Where:
E = SO2 emission rate, in lb/MWh
1.664 × 10-7 = conversion constant, in lb/dscf-ppm
(SO2)c = average SO2 concentration for the run, in ppm
Qstd = stack gas volumetric flow rate, in dscf/hr
P = gross electrical and mechanical energy output of the combustion turbine, in MW (for simple-cycle operation), for combined-cycle operation, the sum of all electrical and mechanical output from the combustion and steam turbines, or, for combined heat and power operation, the sum of all electrical and mechanical output from the combustion and steam turbines plus all useful recovered thermal output not used for additional electric or mechanical generation, in MW, calculated according to § 60.4350(f)(2); or

(3) Measure the SO2 and diluent gas concentrations, using either EPA Methods 6, 6C, or 8 and 3A, or 20 in appendix A of this part. In addition, you may use the manual methods for sulfur dioxide ASME PTC 19-10-1981-Part 10 (incorporated by reference, see § 60.17). Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of this part to calculate the SO2 emission rate in lb/MMBtu. Then, use Equations 1 and, if necessary, 2 and 3 in § 60.4350(f) to calculate the SO2 emission rate in lb/MWh.

SECTION D. Source Level Requirements

III. MONITORING REQUIREMENTS.

 # 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

When conducting periodic monitoring on a turbine, the owner or operator may follow the standard periodic monitoring procedures, below, or if the owner or operator decides to deviate from those procedures, they must submit a request to use an alternate procedure, in writing, at least 60 days prior to performing the periodic monitoring. In the alternate procedure request, the owner or operator must demonstrate the alternate procedure's equivalence to the standard procedure to the satisfaction of the Division of Source Testing and Monitoring.

 # 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Standardized Periodic Monitoring Procedure for a turbine is as follows:

(i) Conduct three test runs of at least 20 minutes duration within plus or minus 25% of 100% of peak load or at the highest achievable load point,
(ii) Determine NOx and CO emissions and O2 concentrations in the exhaust with either an electro-chemical cell portable gas analyzer used and maintained in accordance with the manufacturer's specifications and following the procedures specified in the current version of ASTM D6522.
(iii) If the measured NOx or CO emissions concentrations are in exceedance of the emissions limit, the owner or operator must perform a stack test within 180 days of the periodic monitoring.

 # 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4365]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How can I be exempted from monitoring the total sulfur content of the fuel?

The Owner/Operator may elect not to monitor the total sulfur content of the natural gas combusted in the turbines [for fuel sulfur content monitoring required through NSPS Subpart KKKK], if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. One of the following sources of information must be used to make the required demonstration:

a. The fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel, specifying that the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input; or

b. Representative fuel sampling data which shows that the sulfur content of the fuel does not exceed 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of 40 CFR Part 75 Appendix D is required.

IV. RECORDKEEPING REQUIREMENTS.

 # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For turbine (CT-02), the owner or operator shall maintain the following records:

(a) The plan approval authorization number and the date the turbine was authorized for use;
(b) The make, model, and serial number of the turbine;
(c) A copy of the manufacturer's maintenance instructions or an alternative maintenance plan;
(d) Records of maintenance conducted on the turbine and any installed air cleaning devices;
(e) A copy of the vendor's emission guarantees;
(f) The results of each periodic monitoring;
(g) The summary for each complete test report;
(h) Representative fuel sampling data in accordance with 40 CFR § 60.4365(b);
(i) The results of all compliance calculations in accordance with 40 CFR § 60.7(f), if applicable; and
(j) The emissions calculations for each turbine in accordance with 25 Pa. Code § 135.5.

SECTION D. Source Level Requirements

V. REPORTING REQUIREMENTS.

 # 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The emissions from the natural gas-fired combustion turbine (CT-02) operated during the reporting period must be included in the annual emissions inventory report.

 # 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4375]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What reports must I submit?

The Owner/Operator shall submit the following turbine reports in accordance with 40 CFR §63.4375:

a. N/A.

b. For each affected unit that performs annual performance tests in accordance with §60.4340(a), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

VI. WORK PRACTICE REQUIREMENTS.

 # 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The operating modes of the Solar Titan 130 turbine are defined as follows:

Startup – Beginning upon combustion of fuel within the combustion chamber after a shutdown and ending when the turbine transitions to SoLoNOx mode.
Shutdown – Beginning when the turbine transitions out of SoLoNOx mode and ending when fuel is no longer being combusted.
Low Temperature – Any time fuel is being combusted at an ambient temperature below 0 degrees Fahrenheit.
Normal – Any time fuel is being combusted and the turbine is operating in SoLoNOx mode.

 # 016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Solar Titan 130 turbine duration of each Startup and Shutdown shall be minimized to the extent possible consistent with manufacturer's procedures.

 # 017 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4333]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What are my general requirements for complying with this subpart?

The Owner/Operator shall operate and maintain stationary combustion turbine, air pollution equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction

VII. ADDITIONAL REQUIREMENTS.

 # 018 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4420]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

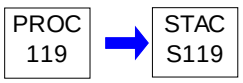
What definitions apply to this subpart?

All terms used in 40 CFR Part 60 Subpart KKKK shall have the meaning given in 40 CFR §60.4420 or else in the Clean Air Act and 40 CFR Part 60 Subpart A.

SECTION D. Source Level Requirements

Source ID: 119 Source Name: GLYCOL PURIFICATION UNIT ENGINE - GPU-ENG

Source Capacity/Throughput: 8.330 MCF/HR



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

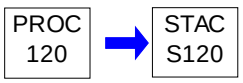
VII. ADDITIONAL REQUIREMENTS.

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

SECTION D. Source Level Requirements

Source ID: 120 Source Name: GLYCOL PURIFICATION UNIT HEATER - GPU-HTR

Source Capacity/Throughput: 8.330 MCF/HR



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

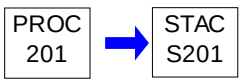
VII. ADDITIONAL REQUIREMENTS.

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

SECTION D. Source Level Requirements

Source ID: 201 Source Name: REBOILER 01

Source Capacity/Throughput: 1.710 MMBTU/HR
1.676 MCF/HR



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

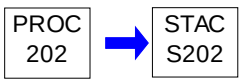
VII. ADDITIONAL REQUIREMENTS.

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

SECTION D. Source Level Requirements

Source ID: 202 Source Name: REBOILER 02

Source Capacity/Throughput: 1.710 MMBTU/HR
1.676 MCF/HR



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

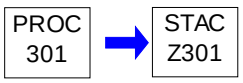
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 301 Source Name: TANKS/VESSELS

Source Capacity/Throughput: N/A
107.600 Gal/HR

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

SECTION D. Source Level Requirements

Source ID: 401 Source Name: TEG DEHYDRATOR 1 (200 MMSCF/DAY) (DHY-01)

Source Capacity/Throughput: 8.330 MMCF/HR

PROC 401 → STAC S201

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Visible emissions from the glycol dehydrator 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.

II. TESTING REQUIREMENTS.

 # 002 [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.

Test methods, compliance procedures, and compliance demonstrations.

a. N/A

b. Determination of glycol dehydration unit flowrate or benzene emissions. The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate or benzene emissions to meet the criteria for an exemption from control requirements under 40 CFR §63.764(e)(1).

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, that the actual annual average natural gas flowrate to the glycol dehydration unit is less than 85 thousand standard cubic meters per day.

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

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

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

SECTION D. Source Level Requirements

c. N/A
d. N/A
e. N/A
f. N/A

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

 # 003 [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.

Recordkeeping requirements.

a. N/A
b. N/A
c. N/A

d. (1) An owner or operator of a glycol dehydration unit that meets the exemption criteria in §63.764(e)(1)(i) or §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).

e. N/A
f. N/A

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

 # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions from the tri-ethylene glycol dehydrator's still vent and flash tank shall be routed to the dehydrator’s reboiler for combustion as fuel.

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.

The triethylene glycol dehydration unit at this facility is subject to the requirements under 40 CFR Part 63 Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities.

SECTION D. Source Level Requirements

 # 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 40 CFR Part 63 Subpart HH shall have the meaning given in 40 CFR §63.761 or else in the Clean Air Act and 40 CFR Part 63 Subpart A.

SECTION D. Source Level Requirements

Source ID: 402 Source Name: TEG DEHYDRATOR 2 (200 MMSCF/DAY)(DHY-02)

Source Capacity/Throughput: 8.330 MMCF/HR

PROC 402 → STAC S202

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Visible emissions from the glycol dehydrator 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.

II. TESTING REQUIREMENTS.

 # 002 [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.

Test methods, compliance procedures, and compliance demonstrations.

a. N/A

b. Determination of glycol dehydration unit flowrate or benzene emissions. The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate or benzene emissions to meet the criteria for an exemption from control requirements under §63.764(e)(1).

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, that the actual annual average natural gas flowrate to the glycol dehydration unit is less than 85 thousand standard cubic meters per day.

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

i. The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalcTM , Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalcTM Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled “Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions” (GRI–95/0368.1); or
ii. The owner or operator shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement using the methods in §63.772(a)(1)(i) or (ii), or an alternative method according to §63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

SECTION D. Source Level Requirements

c. N/A
d. N/A
e. N/A
f. N/A
g. N/A

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

 # 003 [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.

Recordkeeping requirements.

a. N/A
b. N/A
c. N/A

d.

1) An owner or operator of a glycol dehydration unit that meets the exemption criteria in §63.764(e)(1)(i) or §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) N/A

e. N/A
f. N/A

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

 # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions from the tri-ethylene glycol dehydrator's still vent and flash tank shall be routed to the dehydrator's reboiler for combustion as fuel.

VII. ADDITIONAL REQUIREMENTS.

 # 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall comply with all additional applicable requirements of 40 CFR Part 63 Subpart HH due to amendments effective October 15, 2012.

SECTION D. Source Level Requirements

 # 006 [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.

The tri-ethylene glycol dehydrator is subject to 40 CFR Part 63, Subpart HH – National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities.

 # 007 [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 40 CFR Part 63 Subpart HH shall have the meaning given in 40 CFR §63.761 or else in the Clean Air Act and 40 CFR Part 63 Subpart A.

 # 008 [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.

General standards.

a. N/A
b. N/A
c. N/A
d. N/A

e. Exemptions.

1) The owner or operator is exempt from the requirements of paragraph (c)(1) and (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. The actual annual average flowrate of natural gas to the glycol dehydration unit is less than 85 thousand standard cubic meters per day, as determined by the procedures specified in §63.772(b)(1) of this subpart; or
ii. The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram [1.0 ton] per year, as determined by the procedures specified in §63.772(b)(2) of this subpart.

2) N/A

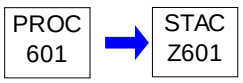
f. N/A
g. N/A
h. N/A
i. N/A

SECTION D. Source Level Requirements

Source ID: 601 Source Name: CBD - COMPRESSOR ENGINE BLOWDOWN

Source Capacity/Throughput: 250.000 CF/HR

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall calculate, maintain, and report VOC emissions from the venting and blowdowns.

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

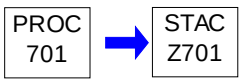
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 701 Source Name: FUG - SITE COMPONENT FUGITIVE EMISSIONS

Source Capacity/Throughput: 0.700 CF/HR

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall comply with all applicable requirements of 40 CFR Part 60 Subpart OOOOa, effective September 18, 2015.

 # 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5397a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

What fugitive emissions GHG and VOC standards apply to the affected facility which is the collection of fugitive emissior

For each affected facility under § 60.5365a(i) and (j), you must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying with the requirements of paragraphs (a) through (j) of this section. These requirements are independent of the closed vent system and cover requirements in § 60.5411a.

(a) You must monitor all fugitive emission components, as defined in § 60.5430a, in accordance with paragraphs (b) through (g) of this section. You must repair all sources of fugitive emissions in accordance with paragraph (h) of this section. You must keep records in accordance with paragraph (i) of this section and report in accordance with paragraph (j) of this section. For purposes of this section, fugitive emissions are defined as: Any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of 500 ppm or greater using Method 21.

(b) You must develop an emissions monitoring plan that covers the collection of fugitive emissions components at well sites and compressor stations within each company-defined area in accordance with paragraphs (c) and (d) of this section.

(c) Fugitive emissions monitoring plans must include the elements specified in paragraphs (c)(1) through (8) of this section, at a minimum.

(1) Frequency for conducting surveys. Surveys must be conducted at least as frequently as required by paragraphs (f) and (g) of this section.

(2) Technique for determining fugitive emissions (i.e., Method 21 at 40 CFR part 60, appendix A-7, or optical gas imaging).

(3) Manufacturer and model number of fugitive emissions detection equipment to be used.

(4) Procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected, including timeframes for fugitive emission components that are unsafe to repair. Your repair schedule must meet the requirements of paragraph (h) of this section at a minimum.

(5) Procedures and timeframes for verifying fugitive emission component repairs.

(6) Records that will be kept and the length of time records will be kept.

(7) If you are using optical gas imaging, your plan must also include the elements specified in paragraphs (c)(7)(i) through (vii) of this section.

SECTION D. Source Level Requirements

(i) Verification that your optical gas imaging equipment meets the specifications of paragraphs (c)(7)(i)(A) and (B) of this section. This verification is an initial verification and may either be performed by the facility, by the manufacturer, or by a third party. For the purposes of complying with the fugitives emissions monitoring program with optical gas imaging, a fugitive emission is defined as any visible emissions observed using optical gas imaging.

(A) Your optical gas imaging equipment must be capable of imaging gases in the spectral range for the compound of highest concentration in the potential fugitive emissions.

(B) Your optical gas imaging equipment must be capable of imaging a gas that is half methane, half propane at a concentration of 10,000 ppm at a flow rate of =60g/hr from a quarter inch diameter orifice.

(ii) Procedure for a daily verification check.

(iii) Procedure for determining the operator's maximum viewing distance from the equipment and how the operator will ensure that this distance is maintained.

(iv) Procedure for determining maximum wind speed during which monitoring can be performed and how the operator will ensure monitoring occurs only at wind speeds below this threshold.

(v) Procedures for conducting surveys, including the items specified in paragraphs (c)(7)(v)(A) through (C) of this section.

(A) How the operator will ensure an adequate thermal background is present in order to view potential fugitive emissions.

(B) How the operator will deal with adverse monitoring conditions, such as wind.

(C) How the operator will deal with interferences (e.g., steam).

(vi) Training and experience needed prior to performing surveys.

(vii) Procedures for calibration and maintenance. At a minimum, procedures must comply with those recommended by the manufacturer.

(8) If you are using Method 21 of appendix A-7 of this part, your plan must also include the elements specified in paragraphs (c)(8)(i) and (ii) of this section. For the purposes of complying with the fugitive emissions monitoring program using Method 21 a fugitive emission is defined as an instrument reading of 500 ppm or greater.

(i) Verification that your monitoring equipment meets the requirements specified in Section 6.0 of Method 21 at 40 CFR part 60, appendix A-7. For purposes of instrument capability, the fugitive emissions definition shall be 500 ppm or greater methane using a FID-based instrument. If you wish to use an analyzer other than a FID-based instrument, you must develop a site-specific fugitive emission definition that would be equivalent to 500 ppm methane using a FID-based instrument (e.g., 10.6 eV PID with a specified isobutylene concentration as the fugitive emission definition would provide equivalent response to your compound of interest).

(ii) Procedures for conducting surveys. At a minimum, the procedures shall ensure that the surveys comply with the relevant sections of Method 21 at 40 CFR part 60, appendix A-7, including Section 8.3.1.

(d) Each fugitive emissions monitoring plan must include the elements specified in paragraphs (d)(1) through (4) of this section, at a minimum, as applicable.

(1) Sitemap.

(2) A defined observation path that ensures that all fugitive emissions components are within sight of the path. The observation path must account for interferences.

(3) If you are using Method 21, your plan must also include a list of fugitive emissions components to be monitored and

method for determining location of fugitive emissions components to be monitored in the field (e.g. tagging, identification on a process and instrumentation diagram, etc.).

(4) Your plan must also include the written plan developed for all of the fugitive emission components designated as difficult-to-monitor in accordance with paragraph (g)(3)(i) of this section, and the written plan for fugitive emission components designated as unsafe-to-monitor in accordance with paragraph (g)(3)(ii) of this section.

(e) Each monitoring survey shall observe each fugitive emissions component, as defined in § 60.5430a, for fugitive emissions.

(f)

(1) You must conduct an initial monitoring survey within 60 days of the startup of production, as defined in § 60.5430a, for each collection of fugitive emissions components at a new well site or by June 3, 2017, whichever is later. For a modified collection of fugitive emissions components at a well site, the initial monitoring survey must be conducted within 60 days of the first day of production for each collection of fugitive emission components after the modification or by June 3, 2017, whichever is later. Notwithstanding the preceding deadlines, for each collection of fugitive emissions components at a well site located on the Alaskan North Slope, as defined in § 60.5430a, that starts up production between September and March, you must conduct an initial monitoring survey within 6 months of the startup of production for a new well site, within 6 months of the first day of production after a modification of the collection of fugitive emission components, or by the following June 30, whichever is later.

(2) You must conduct an initial monitoring survey within 60 days of the startup of a new compressor station for each new collection of fugitive emissions components at the new compressor station or by June 3, 2017, whichever is later. For a modified collection of fugitive components at a compressor station, the initial monitoring survey must be conducted within 60 days of the modification or by June 3, 2017, whichever is later.

(g) A monitoring survey of each collection of fugitive emissions components at a well site or at a compressor station must be performed at the frequencies specified in paragraphs (g)(1) and (2) of this section, with the exceptions noted in paragraphs (g)(3) and (4) of this section.

(1) Except as provided herein, a monitoring survey of each collection of fugitive emissions components at a well site within a company-defined area must be conducted at least semiannually after the initial survey. Consecutive semiannual monitoring surveys must be conducted at least 4 months apart. A monitoring survey of each collection of fugitive emissions components at a well site located on the Alaskan North Slope must be conducted at least annually. Consecutive annual monitoring surveys must be conducted at least 9 months apart.

(2) A monitoring survey of the collection of fugitive emissions components at a compressor station within a company-defined area must be conducted at least quarterly after the initial survey. Consecutive quarterly monitoring surveys must be conducted at least 60 days apart.

(3) Fugitive emissions components that cannot be monitored without elevating the monitoring personnel more than 2 meters above the surface may be designated as difficult-to-monitor. Fugitive emissions components that are designated difficult-to-monitor must meet the specifications of paragraphs (g)(3)(i) through (iv) of this section.

(i) A written plan must be developed for all of the fugitive emissions components designated difficult-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by paragraphs (b), (c), and (d) of this section.

(ii) The plan must include the identification and location of each fugitive emissions component designated as difficult-to-monitor.

(iii) The plan must include an explanation of why each fugitive emissions component designated as difficult-to-monitor is difficult-to-monitor.

(iv) The plan must include a schedule for monitoring the difficult-to-monitor fugitive emissions components at least once

SECTION D. Source Level Requirements

per calendar year.

(4) Fugitive emissions components that cannot be monitored because monitoring personnel would be exposed to immediate danger while conducting a monitoring survey may be designated as unsafe-to-monitor. Fugitive emissions components that are designated unsafe-to-monitor must meet the specifications of paragraphs (g)(4)(i) through (iv) of this section.

(i) A written plan must be developed for all of the fugitive emissions components designated unsafe-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by paragraphs (b), (c), and (d) of this section.

(ii) The plan must include the identification and location of each fugitive emissions component designated as unsafe-to-monitor.

(iii) The plan must include an explanation of why each fugitive emissions component designated as unsafe-to-monitor is unsafe-to-monitor.

(iv) The plan must include a schedule for monitoring the fugitive emissions components designated as unsafe-to-monitor.

(5) The requirements of paragraph (g)(2) of this section are waived for any collection of fugitive emissions components at a compressor station located within an area that has an average calendar month temperature below 0 °Fahrenheit for two of three consecutive calendar months of a quarterly monitoring period. The calendar month temperature average for each month within the quarterly monitoring period must be determined using historical monthly average temperatures over the previous three years as reported by a National Oceanic and Atmospheric Administration source or other source approved by the Administrator. The requirements of paragraph (g)(2) of this section shall not be waived for two consecutive quarterly monitoring periods.

(h) Each identified source of fugitive emissions shall be repaired or replaced in accordance with paragraphs (h)(1) and (2) of this section. For fugitive emissions components also subject to the repair provisions of §§ 60.5416a(b)(9) through (12) and (c)(4) through (7), those provisions apply instead to those closed vent system and covers, and the repair provisions of paragraphs (h)(1) and (2) of this section do not apply to those closed vent systems and covers.

(1) Each identified source of fugitive emissions shall be repaired or replaced as soon as practicable, but no later than 30 calendar days after detection of the fugitive emissions.

(2) If the repair or replacement is technically infeasible, would require a vent blowdown, a compressor station shutdown, a well shutdown or well shut-in, or would be unsafe to repair during operation of the unit, the repair or replacement must be completed during the next scheduled compressor station shutdown, well shutdown, well shut-in, after a planned vent blowdown or within 2 years, whichever is earlier.

(3) Each repaired or replaced fugitive emissions component must be resurveyed as soon as practicable, but no later than 30 days after being repaired, to ensure that there are no fugitive emissions.

(i) For repairs that cannot be made during the monitoring survey when the fugitive emissions are initially found, the operator may resurvey the repaired fugitive emissions components using either Method 21 or optical gas imaging within 30 days of finding such fugitive emissions.

(ii) For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph must be taken of that component or the component must be tagged for identification purposes. The digital photograph must include the date that the photograph was taken, must clearly identify the component by location within the site (e.g., the latitude and longitude of the component or by other descriptive landmarks visible in the picture).

(iii) Operators that use Method 21 to resurvey the repaired fugitive emissions components are subject to the resurvey provisions specified in paragraphs (h)(3)(iii)(A) and (B) of this section.

SECTION D. Source Level Requirements

(A) A fugitive emissions component is repaired when the Method 21 instrument indicates a concentration of less than 500 ppm above background or when no soap bubbles are observed when the alternative screening procedures specified in section 8.3.3 of Method 21 are used.

(B) Operators must use the Method 21 monitoring requirements specified in paragraph (c)(8)(ii) of this section or the alternative screening procedures specified in section 8.3.3 of Method 21.

(iv) Operators that use optical gas imaging to resurvey the repaired fugitive emissions components, are subject to the resurvey provisions specified in paragraphs (h)(3)(iv)(A) and (B) of this section.

(A) A fugitive emissions component is repaired when the optical gas imaging instrument shows no indication of visible emissions.

(B) Operators must use the optical gas imaging monitoring requirements specified in paragraph (c)(7) of this section.

(i) Records for each monitoring survey shall be maintained as specified § 60.5420a(c)(15).

(j) Annual reports shall be submitted for each collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station that include the information specified in § 60.5420a(b)(7). Multiple collection of fugitive emissions components at a well site or at a compressor station may be included in a single annual report.

[81 FR 35898, June 3, 2016, as amended at 83 FR 10638, Mar. 12, 2018]

 # 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5430a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

What definitions apply to this subpart?

Affected facilities are each single reciprocating compressor and the collection of fugitive emissions components at a compressor station, as defined in 40 CFR §60.5430a.

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

 # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In addition to the requirements of OOOOa, the Owner and Operators shall comply with the following conditions regarding fugitive emission components:

(i) No later than 30 days after an emission source commences operation, and at least monthly thereafter, the owner or operator of a facility shall conduct an AVO inspection.

(ii) No later than 60 days after initial startup, and quarterly thereafter, the owner or operator shall conduct an LDAR program using either an OGI camera, a gas leak detector that meets the requirements of 40 CFR Part 60, Appendix A-7, Method 21, or other leak detection methods approved by the Division of Source Testing and Monitoring.

(iii) A leak is defined as:

(A) Any positive indication, whether audible, visual, or odorous, determined during an AVO inspection;

(iv) Any leak detected from a fugitive emission component shall be repaired by the owner or operator of the facility as

expeditiously as practicable. A first attempt at repair must be attempted within 5 calendar days of detection, and repair must be completed no later than 15 calendar days after the leak is detected unless:

(A) The owner or operator must purchase parts, in which case the repair must be completed no later than 10 calendar days after the receipt of the purchased parts; or
(B) The repair or replacement is technically infeasible, would require a vent blowdown, a compressor station, processing plant or transmission station shutdown, or would be unsafe to repair during operation of the unit, in which case the repair or replacement must be completed during the next scheduled compressor station, processing plant or transmission station shutdown, after a planned vent blowdown or within 2 years, whichever is earlier.

(v) Once a fugitive emission component has been repaired or replaced, the owner or operator must resurvey the component as soon as practicable, but no later than 30 calendar days after the leak is repaired.

(A) For repairs that cannot be made during the monitoring survey when the leak is initially found, either a digital photograph must be taken of the component or the component must be tagged for identification purposes.
(B) A leak is considered repaired if:

(1) There are no detectable emissions consistent with Section 8.3.2 of 40 CFR Part 60, Appendix A-7, Method 21;
(2) A leak concentration of less than 500 ppm as methane is detected when the gas leak detector probe inlet is placed at the surface of the component;
(3) There is no visible leak image when using an OGI camera calibrated at a detection sensitivity level of 60 grams/hour; or
(4) There is no bubbling at the leak interface using a soap solution bubble test specified in Section 8.3.3 of 40 CFR Part 60, Appendix A-7, Method 21.

 # 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5397a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

What fugitive emissions GHG and VOC standards apply to the affected facility which is the collection of fugitive emissions components at a well site...which is the collection of fugitive emissions components at a compressor station?

The Owner/Operator shall develop a monitoring plan and recordkeeping for fugitive GHG and VOC emissions from components at a compressor station in accordance with 40 CFR §60.5397a.

IV. RECORDKEEPING REQUIREMENTS.

 # 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For fugitive emissions components, the owner or operator shall maintain the following records:

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

(i) The facility name and location;
(ii) The Plan Approval authorization number;
(iii) The date, start time, and end time of the survey;
(iv) The name of the operator(s) performing the survey;
(v) The monitoring instrument used;
(vi) The ambient temperature, sky conditions, and maximum wind speed at the time of the survey;
(vii) Any deviations from the monitoring plan or a statement that there were none; and
(viii) Documentation of each fugitive emission including:

(A) The identification of each component from which fugitive emissions were detected;
(B) The instrument reading of each fugitive emissions component that meets the leak definition (See monitoring requirements for definition).
(C) The status of repair of each component including:

SECTION D. Source Level Requirements

(1) The repair methods applied in each attempt to repair the component;
(2) The tagging or digital photographing of each component not repaired during the monitoring survey in which the fugitive emissions were discovered;
(3) The reasons a component was placed on delay of repair;
(4) The date of successful repair of the component; and
(5) The information on the instrumentation or method used to resurvey the component after repair, if it was not completed during the monitoring survey in which the fugitive emissions were discovered.

V. REPORTING REQUIREMENTS.

 # 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

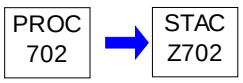
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 702 Source Name: ECC - ENGINE CRANK CASE EMISSIONS

Source Capacity/Throughput: 1,431.500 CF/HR

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

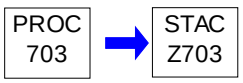
VII. ADDITIONAL REQUIREMENTS.

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

SECTION D. Source Level Requirements

Source ID: 703 Source Name: DGS - SOLAR MARS TURBINE DRY GAS SEAL LEAKS

Source Capacity/Throughput: 586.760 CF/HR



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall calculate, maintain, and report VOC emissions from the dry gas seals.

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

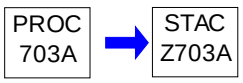
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 703A Source Name: DGS - SOLAR TITAN TURBINE DRY GAS SEAL LEAKS

Source Capacity/Throughput: 586.760 CF/HR

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall calculate, maintain, and report VOC emissions from the dry gas seals.

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

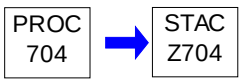
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 704 Source Name: CRP - COMPRESSOR ROD PACKING EMISSIONS

Source Capacity/Throughput: 138.130 CF/HR

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall comply with all applicable requirements of 40 CFR Part 60 Subpart OOOOa effective September, 18, 2015.

 # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall comply with the rod packing replacement requirements for reciprocating compressors based upon specified usage or time specified in 40 CFR Part §60.5385a.

 # 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5385a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

What GHG and VOC standards apply to reciprocating compressor affected facilities?

You must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying 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) On or 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 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) Collect the methane and VOC emissions from the rod packing using a rod packing emissions collection system that operates under negative pressure and route the rod packing emissions to a process through a closed vent system that meets the requirements of § 60.5411a(a) and (d).

(b) You must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by § 60.5410a(c).

(c) You must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by § 60.5415a(c).

(d) You must perform the reporting as required by § 60.5420a(b)(1) and (4) and the recordkeeping as required by § 60.5420a(c)(3), (6) through (9), and (17), as applicable.

 # 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5410a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

SECTION D. Source Level Requirements

How do I demonstrate initial compliance with the standards for my well, centrifugal compressor, reciprocating compres

You must determine initial compliance with the standards for each affected facility using the requirements in paragraphs (a) through (j) of this section. The initial compliance period begins on August 2, 2016, or upon initial startup, whichever is later, and ends no later than 1 year after the initial startup date for your affected facility or no later than 1 year after August 2, 2016. The initial compliance period may be less than one full year.

(a) N/A
(b) N/A
(c) To achieve initial compliance with the standards for each reciprocating compressor affected facility you must comply with paragraphs (c)(1) through (4) of this section.

(1) If complying with § 60.5385a(a)(1) or (2), during the initial compliance period, you must continuously monitor the number of hours of operation or track the number of months since the last rod packing replacement.

(2) If complying with § 60.5385a(a)(3), you must operate the rod packing emissions collection system under negative pressure and route emissions to a process through a closed vent system that meets the requirements of § 60.5411a(a) and (d).

(3) You must submit the initial annual report for your reciprocating compressor as required in § 60.5420a(b)(1) and (4).

(4) You must maintain the records as specified in § 60.5420a(c)(3) for each reciprocating compressor affected facility.

(d) - (j) N/A

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

 # 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5415a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

How do I demonstrate continuous compliance with the standards for my well, centrifugal compressor, reciprocating compressor, pneumatic controller, pneumatic pump,...and affected facilities at onshore natural gas processing plants?

(a)- (b) N/A
(c) For each reciprocating compressor affected facility complying with § 60.5385a(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 § 60.5385a(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 the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

(2) You must submit the annual reports as required in § 60.5420a(b)(1) and (4) and maintain records as required in § 60.5420a(c)(3).

(3) You must replace the reciprocating compressor rod packing on or 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.

(4) You must operate the rod packing emissions collection system under negative pressure and continuously comply with the cover and closed vent requirements in § 60.5416a(a) and (b).

SECTION D. Source Level Requirements

(d) - (e) N/A

IV. RECORDKEEPING REQUIREMENTS.

 # 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5420a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

What are my notification, reporting, and recordkeeping requirements?

In accordance with 40 CFR60.5420a (c)(3), for each reciprocating compressor affected facility, you must maintain the records in paragraphs (c)(4)(i) through (iii) of this section.

(i) Records of the cumulative number of hours of operation or number of months since initial startup or the previous replacement of the reciprocating compressor rod packing, whichever is later. Alternatively, a statement that emissions from the rod packing are being routed to a process through a closed vent system under negative pressure.

(ii) Records of the date and time of each reciprocating compressor rod packing replacement, or date of installation of a rod packing emissions collection system and closed vent system as specified in §60.5385a(a)(3).

(iii) Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in §60.5385a.

V. REPORTING REQUIREMENTS.

 # 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5420a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

What are my notification, reporting, and recordkeeping requirements?

In accordance with 40 CFR60.5420a (b)(4), for each reciprocating compressor affected facility, the information specified in paragraphs (b)(4)(i) and (ii) of this section.

(i) The cumulative number of hours of operation or the number of months since initial startup or since the previous reciprocating compressor rod packing replacement, whichever is later. Alternatively, a statement that emissions from the rod packing are being routed to a process through a closed vent system under negative pressure.

(ii) Records of deviations specified in paragraph (c)(3)(iii) of this section that occurred during the reporting period.

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

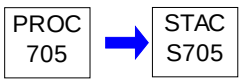
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 705 Source Name: ESU - ENGINE START UP/BLOWDOWN

Source Capacity/Throughput: 422.620 CF/HR

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

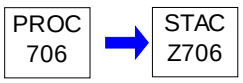
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Requirements

Source ID: 706 Source Name: TLO - TRUCK LOADOUT

Source Capacity/Throughput: 94.300 Gal/HR
0.015 Lbs/HR VOC

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

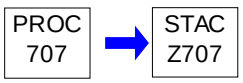
VII. ADDITIONAL REQUIREMENTS.

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

SECTION D. Source Level Requirements

Source ID: 707 Source Name: SSM - SOLAR MARS TURBINE

Source Capacity/Throughput: 452.000 CF/HR



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

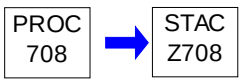
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements).

SECTION D. Source Level Requirements

Source ID: 708 Source Name: SSM - SOLAR TITAN TURBINE

Source Capacity/Throughput: 500.000 CF/HR

Conditions for this source occur in the following groups: G105



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

SECTION D. Source Level Requirements

Source ID: 801 Source Name: PIG - PIGGING OPERATIONS

Source Capacity/Throughput: 18.260 CF/HR

PROC 801 → STAC Z801

I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Records of pigging activities shall be kept and maintained on site for 5 years and made available to the Department upon request.

 # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions associated with pigging activities shall be calculated, maintained, and reported in the annual emission inventory.

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

SECTION E. Source Group Restrictions.

Group Name: G102

Group Description: Caterpillar G3516J New Natural Gas Compressor Engines (1380 BHP Each)

Sources included in this group

ID	Name
109A	CAT G3516B COMPRESSOR ENGINE #6A (1380 BHP)(CE-06)
116	CAT G3516J COMPRESSOR ENGINE (CE-03) (1380 HP)

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Visible emissions from the Caterpillar engines 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.

Compliance with this more stringent BAT requirement ensures compliance with 25 Pa. Code 123.41.

 # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emissions from the Caterpillar engines shall be limited to the following:

At rated bhp and speed:

NOx – 0.50 g/bhp-hr
CO – 0.25 g/bhp-hr
NMNEHC – 0.25 g/bhp-hr
HCHO – 0.05 g/bhp-hr

 # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pipeline quality natural gas shall be used for fuel in the engines to ensure compliance with the particulate matter emission limitation of 25 Pa. Code §127.13(c) and the sulfur oxide limitation of 25 Pa. Code §127.21.

 # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall install, operate, and maintain a non-resettable hour meter on each engine.

II. TESTING REQUIREMENTS.

 # 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Portable analyzer testing according to ASTM Methods D6522-00 and D6348-03, or other methods included in Table 2 to Subpart JJJJ of Part 60 are acceptable for testing every 8,760 hours or 3 years.

 # 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Subsequent NOx and CO testing shall be performed within twelve (12) months of initial stack testing and annually, thereafter. Portable analyzer testing according to ASTM Method D6522-00 or other portable methods if approved by the Department and included in Table 2 to Subpart JJJJ of Part 60 are acceptable for intervening annual testing.

SECTION E. Source Group Restrictions.

 # 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall perform NOx, CO, and VOC (NMNEHC) emission tests upon each compressor engine at the facility according to the requirements of 25 Pa. Code Chapter 139, 40 CFR §§60.4243, and 60.4244 using 40 CFR Part 60, Appendix A-4, Methods 7E, 10, ALT-106, or approved equivalent method, respectively. 40 CFR Part 60 and Part 63 requirements are included as compressor engine conditions in this operating permit.

 # 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall perform formaldehyde (HCHO) emission tests upon each compressor engine according to the requirements of 25 Pa. Code Chapter 139 and 40 CFR Part 63 appendix A, Method 320. Initial and subsequent formaldehyde testing of the engine are required.

 # 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

EPA Method stack testing shall be conducted for the initial stack test and at minimum once every five years from the previous EPA Method test for NOx, CO, VOC, and formaldehyde.

 # 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The owner or operator should conduct the following performance test procedures:

(i) Conduct three test runs of at least one hour duration within 10% of 100% peak (or the highest achievable) load.
(ii) Select the sampling port location and the number and location of traverse points at the exhaust using 40 CFR Part 60, Appendix A-1, Method 1 or 1A depending on stack diameter, or the sampling points selected according to 40 CFR Part 60, Appendix A-4, Method 7E Section 8.1.2.
(iii) Determine the effluent characteristics by either:
(A) Calculating the exhaust flow in accordance with 40 CFR Part 60, Appendix A-7, Method 19 and measuring the O2 concentration using 40 CFR Part 60, Appendix A-2, Method 3A; or
(B) By measuring:
(1) The flow velocity, stack temperature, static pressure, and barometric pressure using 40 CFR Part 60, Appendix A-1, Method 2 or 2C depending on stack diameter;
(2) The gas density using 40 CFR Part 60, Appendix A-2, Method 3A; and
(3) The moisture content using 40 CFR Part 60, Appendix A-3, Method 4.
(iv) Simultaneous to the determination of the O2 concentration in (iii)(A) or (B) above, determine:
(A) The NOX concentration of the exhaust gas using 40 CFR Part 60, Appendix A-4, Method 7E;
(B) The CO concentration of the exhaust gas using 40 CFR Part 60, Appendix A-4, Method 10;
(C) The NMNEHC concentration, as propane, excluding formaldehyde of the exhaust gas using ALT-320; and
(D) The formaldehyde concentration of the exhaust gas, if applicable, using 40 CFR Part 63, Appendix A, Method 320.

 # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

If at any time the owner or operator operates the engine in excess of the highest achievable load plus 10%, the owner or operator must perform a stack test within 180 days from the anomalous operation.

 # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

An owner or operator of a stationary SI internal combustion engine greater than 500 HP 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 [with NOx, CO, and VOC limits of NSPS JJJJ Table 1]. The 8,760 hours duration is in reference to hours of operation of the engine while 3 years is independent of operational hours of the engine. An initial performance test for new engines requires the test to be performed within 180 days of startup of the engine. Initial performance testing shall be required within 1 year of startup of the engines.

 # 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40

SECTION E. Source Group Restrictions.

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."

 # 014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall perform NOx, CO, HCHO, and VOC emission tests upon the Caterpillar engines according to the requirements of 40 CFR §§60.4243 and 60.4244.

 # 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Subsequent NOx, CO, HCHO, and VOC performance testing shall be performed every 8,760 hours or 3 years, whichever comes first. For certified engines that are operated and maintained in accordance with manufacturer's specifications, the continuous compliance performance testing requirements every 8,760 hours of operation or every three years are waived.

III. MONITORING REQUIREMENTS.

 # 016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The owner or operator may deviate from the above referenced periodic monitoring procedures provided they must submit a request to use an alternate procedure, in writing, at least 60 days prior to performing the periodic monitoring. In the alternate procedure request, the owner or operator must demonstrate the alternate procedure's equivalence to the standard procedure to the satisfaction of the Division of Source Testing and Monitoring.

 # 017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The owner or operator conducting periodic monitoring on an engine must follow the procedures specified below:

(i) Conduct three test runs of at least 20 minutes duration within 10% of 100% peak (or the highest achievable) load.
(ii) Determine NOx and CO emissions and O2 concentrations in the exhaust with either an electro-chemical cell portable gas analyzer used and maintained in accordance with the manufacturer's specifications and following the procedures specified in the current version of ASTM D6522 or by following the Performance Testing Requirements specified for engines in the plan approval.
(iii) If the measured NOx or CO emissions concentrations are in exceedance of the emissions limit, the owner or operator must perform a stack test in accordance with the Performance Testing Requirements within 180 days of the periodic monitoring.

 # 018 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall conduct periodic monitoring every 2,500 hours of operation unless prior written Department approval specifies otherwise.

IV. RECORDKEEPING REQUIREMENTS.

 # 019 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For each engine, the owner or operator shall maintain the following comprehensive and accurate records:

1) The make, model, serial number and manufacturer's engine certificate or vendor guarantees of each engine.
2) The number of hours of operation per month that each engine operated.
3) The amount of fuel used per month by each engine.
4) Emission calculations for each engine.
5) Records including a description of testing methods, results, all engine operating data collected during tests, and a copy of the calculations performed to determine compliance with emission standards for each internal combustion engine.
6) Copies of the report that demonstrates that the engines were operating at rated bhp and speed conditions during performance testing.

SECTION E. Source Group Restrictions.

7) Copies of the manufacturer's maintenance instructions and recommended maintenance schedule for each engine and catalyst.
8) Records of any maintenance conducted on each engine and catalyst.
9) Records of catalyst inlet temperature readings performed once each month on each engine operated during the month.
10) Records of a natural gas analysis performed annually on the inlet natural gas to the facility.
11) Records of facility-wide inspections including the date, time, name, and title of the observer, along with any corrective action taken as a result.

V. REPORTING REQUIREMENTS.

 # 020 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/operator shall provide EPA with the notifications required by 40 CFR § 60.7. Required notifications may include but are not necessarily limited to: date of commencement of construction (within 30 days after starting construction), actual start-up date (within 15 days after equipment start-up), physical or operational changes (60 days or as soon as practicable before equipment start-up), and opacity observations (within 30 days).

VI. WORK PRACTICE REQUIREMENTS.

 # 021 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall limit the engine's time spent at idle during startup or shutdown to a period appropriate for the operation of the engine and air pollution control equipment consistent with good air pollution control practices, not to exceed 30 minutes, during which time the emissions standards do not apply.

 # 022 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall perform maintenance on the oxidation catalyst or engine as necessary to meet CO and formaldehyde (HCHO) limits.

VII. ADDITIONAL REQUIREMENTS.

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

SECTION E. Source Group Restrictions.

Group Name: G103

Group Description: NSPS JJJJ Stationary SI ICE

Sources included in this group

ID	Name
109A	CAT G3516B COMPRESSOR ENGINE #6A (1380 BHP)(CE-06)
116	CAT G3516J COMPRESSOR ENGINE (CE-03) (1380 HP)

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [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) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

(f) - (h) N/A.

(Compliance with the BAT emission limitations for NOx, CO, and VOC ensure compliance with the Subpart JJJJ Table 1 emission limits)

 # 002 [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.

 # 003 [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?

As an Owner/Operator of stationary SI ICE subject to the emission standards specified in §60.4233(e), you must demonstrate compliance according to one of the methods specified in 40 CFR §60.4243.

II. TESTING REQUIREMENTS.

 # 004 [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).

SECTION E. Source Group Restrictions.

Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

(d) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 1 of this section:

(Formula omitted...refer to regulation for exact formula notation).

Image: "Equation 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:

(Formula omitted...refer to regulation for exact formula notation).

Image: "Equation 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:

(Formula omitted...refer to regulation for exact formula notation).

Image: "Equation 3"

Where:

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

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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.

(Formula omitted...refer to regulation for exact formula notation).

"Equation 4"

Where:

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

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

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

(Formula omitted...refer to regulation for exact formula notation).

"Equation 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.

(Formula omitted...refer to regulation for exact formula notation).

"Equation 6"

Where:

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

 # 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.8]

Subpart A - General Provisions

Performance tests.

(a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

SECTION E. Source Group Restrictions.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

 # 006 [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

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this section.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(2) Maintenance conducted on the engine.

(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060 , as applicable.

[§60.4245(a)(3) amended at 73 FR 59177, Oct. 8, 2008, effective Dec. 8, 2008]

(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.
(e) N/A

V. REPORTING REQUIREMENTS.

 # 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

Subpart A - General Provisions

Address.

The facility is subject New Source Performance Standards from 40 CFR Part 60 Subpart JJJJ and 40 CFR Part 63 Subpart ZZZZ In accordance with 40 CFR §§ 60.4 and 63.10, copies of all requests, reports, applications, submittals, and other communications shall be submitted to the Department at the addressee listed below and unless otherwise noted to the U.S. EPA via the Compliance and Emissions Data Reporting Interface (CEDRI) accessible at https://cdx.epa.gov unless electronic reporting is not available, in which case a copy shall be sent to the following address:

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

PADEP
Air Quality Program
400 Waterfront Drive
Pittsburgh, PA 15222-4745

SECTION E. Source Group Restrictions.

VI. WORK PRACTICE REQUIREMENTS.

 # 008 [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) - (d) N/A

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

(f) - (i) N/A

VII. ADDITIONAL REQUIREMENTS.

 # 009 [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?

Subpart JJJJ added and reserved at 71 FR 38497, July 6, 2006; text added at 73 FR 3591, Jan. 18, 2008]

(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 (5) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) N/A
(2) N/A
(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) N/A
(iii) N/A
(iv) N/A
(5) N/A

SECTION E. Source Group Restrictions.

(b) N/A
(c) N/A
(d) N/A
(e) N/A
(f) N/A

 # 010 [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?

The Caterpillar engines are subject to the requirements under 40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.[40 CFR §60.4230(a)(4)(i)]

 # 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4246]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What parts of the General Provisions apply to me?

The Owner/Operator shall comply with the applicable General Provisions in 40 CFR 60.1 through 60.19 as identified in Table 3 to 40 CFR Part 60 Subpart JJJJ.

 # 012 [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?

All terms used in 40 CFR Part 60 Subpart JJJJ shall have the meaning given in 40 CFR §60.4248 or else in the Clean Air Act and 40 CFR Part 60 Subpart A.

SECTION E. Source Group Restrictions.

Group Name: G104

Group Description: NESHAPS ZZZZ SI ICE

Sources included in this group

ID	Name
109A	CAT G3516B COMPRESSOR ENGINE #6A (1380 BHP)(CE-06)
116	CAT G3516J COMPRESSOR ENGINE (CE-03) (1380 HP)

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) N/A
(f) N/A
[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan.

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

SECTION E. Source Group Restrictions.

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

 # 002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6590]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) Existing stationary RICE.

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) New stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) N/A

(b) N/A

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

SECTION E. Source Group Restrictions.

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

SECTION E. Source Group Restrictions.

Group Name: G105

Group Description: NSPS OOOO and OOOOa Natural Gas Production Facility

Sources included in this group

ID	Name
109A	CAT G3516B COMPRESSOR ENGINE #6A (1380 BHP)(CE-06)
110	SOLAR MARS 100-16000S TURBINE (15,252 HP) (CT-01)
116	CAT G3516J COMPRESSOR ENGINE (CE-03) (1380 HP)
118	SOLAR TITAN 130 -23502S (21,158 HP)(CT-02)
301	TANKS/VESSELS
601	CBD - COMPRESSOR ENGINE BLOWDOWN
701	FUG - SITE COMPONENT FUGITIVE EMISSIONS
702	ECC - ENGINE CRANK CASE EMISSIONS
703A	DGS - SOLAR TITAN TURBINE DRY GAS SEAL LEAKS
704	CRP - COMPRESSOR ROD PACKING EMISSIONS
705	ESU - ENGINE START UP/BLOWDOWN
706	TLO - TRUCK LOADOUT
708	SSM - SOLAR TITAN TURBINE

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5385a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

What GHG and VOC standards apply to reciprocating compressor affected facilities?

You must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying 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) On or 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 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) Collect the methane and VOC emissions from the rod packing using a rod packing emissions collection system that operates under negative pressure and route the rod packing emissions to a process through a closed vent system that meets the requirements of § 60.5411a(a) and (d).

(b) You must demonstrate initial compliance with standards that apply to reciprocating compressor affected facilities as required by § 60.5410a(c).

(c) You must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by § 60.5415a(c).

(d) You must perform the reporting as required by § 60.5420a(b)(1) and (4) and the recordkeeping as required by § 60.5420a(c)(3), (6) through (9), and (17), as applicable.

SECTION E. Source Group Restrictions.

 # 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5410a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

How do I demonstrate initial compliance with the standards for my well, centrifugal compressor, reciprocating compres

You must determine initial compliance with the standards for each affected facility using the requirements in paragraphs (a) through (j) of this section. The initial compliance period begins on August 2, 2016, or upon initial startup, whichever is later, and ends no later than 1 year after the initial startup date for your affected facility or no later than 1 year after August 2, 2016. The initial compliance period may be less than one full year.

(a) - (b) N/A
(c) To achieve initial compliance with the standards for each reciprocating compressor affected facility you must comply with paragraphs (c)(1) through (4) of this section.

(1) If complying with § 60.5385a(a)(1) or (2), during the initial compliance period, you must continuously monitor the number of hours of operation or track the number of months since the last rod packing replacement.

(2) If complying with § 60.5385a(a)(3), you must operate the rod packing emissions collection system under negative pressure and route emissions to a process through a closed vent system that meets the requirements of § 60.5411a(a) and (d).

(3) You must submit the initial annual report for your reciprocating compressor as required in § 60.5420a(b)(1) and (4).

(4) You must maintain the records as specified in § 60.5420a(c)(3) for each reciprocating compressor affected facility.

(d)- (e) N/A

(f) For affected facilities at onshore natural gas processing plants, initial compliance with the methane and VOC standards is demonstrated if you are in compliance with the requirements of § 60.5400a.

(g)-(i)

(j) To achieve initial compliance with the fugitive emission standards for each collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station, you must comply with paragraphs (j)(1) through (5) of this section.

(1) You must develop a fugitive emissions monitoring plan as required in §60.5397a(b)(c), and (d).

(2) You must conduct an initial monitoring survey as required in §60.5397a(f).

(3) You must maintain the records specified in §60.5420a(c)(15).

(4) You must repair each identified source of fugitive emissions for each affected facility as required in §60.5397a(h).

(5) You must submit the initial annual report for each collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station compressor station as required in §60.5420a(b)(1) and (7).

 # 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5415a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

How do I demonstrate continuous compliance with the standards for my well, centrifugal compressor, reciprocating cor

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

SECTION E. Source Group Restrictions.

For each reciprocating compressor affected facility complying with § 60.5385a(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 the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

(2) You must submit the annual reports as required in § 60.5420a(b)(1) and (4) and maintain records as required in § 60.5420a(c)(3).

(3) You must replace the reciprocating compressor rod packing on or 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.

(4) You must operate the rod packing emissions collection system under negative pressure and continuously comply with the cover and closed vent requirements in § 60.5416a(a) and (b).

(d) - (g) N/A

(h) For each collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station, you must demonstrate continuous compliance with the fugitive emission standards specified in § 60.5397a according to paragraphs (h)(1) through (4) of this section.

(1) You must conduct periodic monitoring surveys as required in § 60.5397a(g).

(2) You must repair or replace each identified source of fugitive emissions as required in § 60.5397a(h).

(3) You must maintain records as specified in § 60.5420a(c)(15).

(4) You must submit annual reports for collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station as required in § 60.5420a(b)(1) and (7).

[81 FR 35898, June 3, 2016, as amended at 82 FR 25733, June 5, 2017]

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

 # 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.5397a]

Subpart OOOOa - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015

What fugitive emissions GHG and VOC standards apply to the affected facility which is the collection of fugitive emissions components at a well site...which is the collection of fugitive emissions components at a compressor station?

For each affected facility under § 60.5365a(i) and (j), you must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying with the requirements of paragraphs (a) through (j) of this section. These requirements are independent of the closed vent system and cover requirements in § 60.5411a.

(a) You must monitor all fugitive emission components, as defined in § 60.5430a, in accordance with paragraphs (b) through (g) of this section. You must repair all sources of fugitive emissions in accordance with paragraph (h) of this section. You must keep records in accordance with paragraph (i) of this section and report in accordance with paragraph (j) of this section. For purposes of this section, fugitive emissions are defined as: Any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of 500 ppm or greater using Method 21.

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(b) You must develop an emissions monitoring plan that covers the collection of fugitive emissions components at well sites and compressor stations within each company-defined area in accordance with paragraphs (c) and (d) of this section.

(c) Fugitive emissions monitoring plans must include the elements specified in paragraphs (c)(1) through (8) of this section, at a minimum.

(1) Frequency for conducting surveys. Surveys must be conducted at least as frequently as required by paragraphs (f) and (g) of this section.

(2) Technique for determining fugitive emissions (i.e., Method 21 at 40 CFR part 60, appendix A-7, or optical gas imaging).

(3) Manufacturer and model number of fugitive emissions detection equipment to be used.

(4) Procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected, including timeframes for fugitive emission components that are unsafe to repair. Your repair schedule must meet the requirements of paragraph (h) of this section at a minimum.

(5) Procedures and timeframes for verifying fugitive emission component repairs.

(6) Records that will be kept and the length of time records will be kept.

(7) If you are using optical gas imaging, your plan must also include the elements specified in paragraphs (c)(7)(i) through (vii) of this section.

(i) Verification that your optical gas imaging equipment meets the specifications of paragraphs (c)(7)(i)(A) and (B) of this section. This verification is an initial verification and may either be performed by the facility, by the manufacturer, or by a third party. For the purposes of complying with the fugitives emissions monitoring program with optical gas imaging, a fugitive emission is defined as any visible emissions observed using optical gas imaging.

(A) Your optical gas imaging equipment must be capable of imaging gases in the spectral range for the compound of highest concentration in the potential fugitive emissions.

(B) Your optical gas imaging equipment must be capable of imaging a gas that is half methane, half propane at a concentration of 10,000 ppm at a flow rate of =60g/hr from a quarter inch diameter orifice.

(ii) Procedure for a daily verification check.

(iii) Procedure for determining the operator's maximum viewing distance from the equipment and how the operator will ensure that this distance is maintained.

(iv) Procedure for determining maximum wind speed during which monitoring can be performed and how the operator will ensure monitoring occurs only at wind speeds below this threshold.

(v) Procedures for conducting surveys, including the items specified in paragraphs (c)(7)(v)(A) through (C) of this section.

(A) How the operator will ensure an adequate thermal background is present in order to view potential fugitive emissions.

(B) How the operator will deal with adverse monitoring conditions, such as wind.

(C) How the operator will deal with interferences (e.g., steam).

(vi) Training and experience needed prior to performing surveys.

(vii) Procedures for calibration and maintenance. At a minimum, procedures must comply with those recommended by the manufacturer.

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(8) If you are using Method 21 of appendix A-7 of this part, your plan must also include the elements specified in paragraphs (c)(8)(i) and (ii) of this section. For the purposes of complying with the fugitive emissions monitoring program using Method 21 a fugitive emission is defined as an instrument reading of 500 ppm or greater.

(i) Verification that your monitoring equipment meets the requirements specified in Section 6.0 of Method 21 at 40 CFR part 60, appendix A-7. For purposes of instrument capability, the fugitive emissions definition shall be 500 ppm or greater methane using a FID-based instrument. If you wish to use an analyzer other than a FID-based instrument, you must develop a site-specific fugitive emission definition that would be equivalent to 500 ppm methane using a FID-based instrument (e.g., 10.6 eV PID with a specified isobutylene concentration as the fugitive emission definition would provide equivalent response to your compound of interest).

(ii) Procedures for conducting surveys. At a minimum, the procedures shall ensure that the surveys comply with the relevant sections of Method 21 at 40 CFR part 60, appendix A-7, including Section 8.3.1.

(d) Each fugitive emissions monitoring plan must include the elements specified in paragraphs (d)(1) through (4) of this section, at a minimum, as applicable.

(1) Sitemap.

(2) A defined observation path that ensures that all fugitive emissions components are within sight of the path. The observation path must account for interferences.

(3) If you are using Method 21, your plan must also include a list of fugitive emissions components to be monitored and method for determining location of fugitive emissions components to be monitored in the field (e.g. tagging, identification on a process and instrumentation diagram, etc.).

(4) Your plan must also include the written plan developed for all of the fugitive emission components designated as difficult-to-monitor in accordance with paragraph (g)(3)(i) of this section, and the written plan for fugitive emission components designated as unsafe-to-monitor in accordance with paragraph (g)(3)(ii) of this section.

(e) Each monitoring survey shall observe each fugitive emissions component, as defined in § 60.5430a, for fugitive emissions.

(f)

(1) You must conduct an initial monitoring survey within 60 days of the startup of production, as defined in § 60.5430a, for each collection of fugitive emissions components at a new well site or by June 3, 2017, whichever is later. For a modified collection of fugitive emissions components at a well site, the initial monitoring survey must be conducted within 60 days of the first day of production for each collection of fugitive emission components after the modification or by June 3, 2017, whichever is later. Notwithstanding the preceding deadlines, for each collection of fugitive emissions components at a well site located on the Alaskan North Slope, as defined in § 60.5430a, that starts up production between September and March, you must conduct an initial monitoring survey within 6 months of the startup of production for a new well site, within 6 months of the first day of production after a modification of the collection of fugitive emission components, or by the following June 30, whichever is later.

(2) You must conduct an initial monitoring survey within 60 days of the startup of a new compressor station for each new collection of fugitive emissions components at the new compressor station or by June 3, 2017, whichever is later. For a modified collection of fugitive components at a compressor station, the initial monitoring survey must be conducted within 60 days of the modification or by June 3, 2017, whichever is later.

(g) A monitoring survey of each collection of fugitive emissions components at a well site or at a compressor station must be performed at the frequencies specified in paragraphs (g)(1) and (2) of this section, with the exceptions noted in paragraphs (g)(3) and (4) of this section.

(1) Except as provided herein, a monitoring survey of each collection of fugitive emissions components at a well site within a company-defined area must be conducted at least semiannually after the initial survey. Consecutive semiannual monitoring surveys must be conducted at least 4 months apart. A monitoring survey of each collection of fugitive emissions

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components at a well site located on the Alaskan North Slope must be conducted at least annually. Consecutive annual monitoring surveys must be conducted at least 9 months apart.

(2) A monitoring survey of the collection of fugitive emissions components at a compressor station within a company-defined area must be conducted at least quarterly after the initial survey. Consecutive quarterly monitoring surveys must be conducted at least 60 days apart.

(3) Fugitive emissions components that cannot be monitored without elevating the monitoring personnel more than 2 meters above the surface may be designated as difficult-to-monitor. Fugitive emissions components that are designated difficult-to-monitor must meet the specifications of paragraphs (g)(3)(i) through (iv) of this section.

(i) A written plan must be developed for all of the fugitive emissions components designated difficult-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by paragraphs (b), (c), and (d) of this section.

(ii) The plan must include the identification and location of each fugitive emissions component designated as difficult-to-monitor.

(iii) The plan must include an explanation of why each fugitive emissions component designated as difficult-to-monitor is difficult-to-monitor.

(iv) The plan must include a schedule for monitoring the difficult-to-monitor fugitive emissions components at least once per calendar year.

(4) Fugitive emissions components that cannot be monitored because monitoring personnel would be exposed to immediate danger while conducting a monitoring survey may be designated as unsafe-to-monitor. Fugitive emissions components that are designated unsafe-to-monitor must meet the specifications of paragraphs (g)(4)(i) through (iv) of this section.

(i) A written plan must be developed for all of the fugitive emissions components designated unsafe-to-monitor. This written plan must be incorporated into the fugitive emissions monitoring plan required by paragraphs (b), (c), and (d) of this section.

(ii) The plan must include the identification and location of each fugitive emissions component designated as unsafe-to-monitor.

(iii) The plan must include an explanation of why each fugitive emissions component designated as unsafe-to-monitor is unsafe-to-monitor.

(iv) The plan must include a schedule for monitoring the fugitive emissions components designated as unsafe-to-monitor.

(5) The requirements of paragraph (g)(2) of this section are waived for any collection of fugitive emissions components at a compressor station located within an area that has an average calendar month temperature below 0 °Fahrenheit for two of three consecutive calendar months of a quarterly monitoring period. The calendar month temperature average for each month within the quarterly monitoring period must be determined using historical monthly average temperatures over the previous three years as reported by a National Oceanic and Atmospheric Administration source or other source approved by the Administrator. The requirements of paragraph (g)(2) of this section shall not be waived for two consecutive quarterly monitoring periods.

(h) Each identified source of fugitive emissions shall be repaired or replaced in accordance with paragraphs (h)(1) and (2) of this section. For fugitive emissions components also subject to the repair provisions of §§ 60.5416a(b)(9) through (12) and (c)(4) through (7), those provisions apply instead to those closed vent system and covers, and the repair provisions of paragraphs (h)(1) and (2) of this section do not apply to those closed vent systems and covers.

(1) Each identified source of fugitive emissions shall be repaired or replaced as soon as practicable, but no later than 30 calendar days after detection of the fugitive emissions.

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(2) If the repair or replacement is technically infeasible, would require a vent blowdown, a compressor station shutdown, a well shutdown or well shut-in, or would be unsafe to repair during operation of the unit, the repair or replacement must be completed during the next scheduled compressor station shutdown, well shutdown, well shut-in, after a planned vent blowdown or within 2 years, whichever is earlier.

(3) Each repaired or replaced fugitive emissions component must be resurveyed as soon as practicable, but no later than 30 days after being repaired, to ensure that there are no fugitive emissions.

(i) For repairs that cannot be made during the monitoring survey when the fugitive emissions are initially found, the operator may resurvey the repaired fugitive emissions components using either Method 21 or optical gas imaging within 30 days of finding such fugitive emissions.

(ii) For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph must be taken of that component or the component must be tagged for identification purposes. The digital photograph must include the date that the photograph was taken, must clearly identify the component by location within the site (e.g., the latitude and longitude of the component or by other descriptive landmarks visible in the picture).

(iii) Operators that use Method 21 to resurvey the repaired fugitive emissions components are subject to the resurvey provisions specified in paragraphs (h)(3)(iii)(A) and (B) of this section.

(A) A fugitive emissions component is repaired when the Method 21 instrument indicates a concentration of less than 500 ppm above background or when no soap bubbles are observed when the alternative screening procedures specified in section 8.3.3 of Method 21 are used.

(B) Operators must use the Method 21 monitoring requirements specified in paragraph (c)(8)(ii) of this section or the alternative screening procedures specified in section 8.3.3 of Method 21.

(iv) Operators that use optical gas imaging to resurvey the repaired fugitive emissions components, are subject to the resurvey provisions specified in paragraphs (h)(3)(iv)(A) and (B) of this section.

(A) A fugitive emissions component is repaired when the optical gas imaging instrument shows no indication of visible emissions.

(B) Operators must use the optical gas imaging monitoring requirements specified in paragraph (c)(7) of this section.

(i) Records for each monitoring survey shall be maintained as specified § 60.5420a(c)(15).

(j) Annual reports shall be submitted for each collection of fugitive emissions components at a well site and each collection of fugitive emissions components at a compressor station that include the information specified in § 60.5420a(b)(7). Multiple collection of fugitive emissions components at a well site or at a compressor station may be included in a single annual report.

[81 FR 35898, June 3, 2016, as amended at 83 FR 10638, Mar. 12, 2018]

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

SECTION E. Source Group Restrictions.

VII. ADDITIONAL REQUIREMENTS.

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

SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this State Only facility.

SECTION G. Emission Restriction Summary.

No emission restrictions listed in this section of the permit.

SECTION H. Miscellaneous.

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