





COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR QUALITY PROGRAM

STATE ONLY NATURAL MINOR OPERATING PERMIT

Issue Date: February 22, 2023 Effective Date: March 8, 2023

Expiration Date: February 22, 2028

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: 63-00983

Natural Minor

Federal Tax Id - Plant Code: 31-0802435-37

Owner Information Name: COLUMBIA GAS TRANS LLC Mailing Address: 1700 MACCORKLE AVE SE CHARLESTON, WV 25314-1518 Plant Information Plant: COLUMBIA GAS TRANS LLC/REDD FARM COMP STA Location: 63 Washington County 63913 Amwell Township SIC Code: 4923 Trans. & Utilities - Gas Transmission And Distribution Responsible Official Name: MARK MATSON Title: MGR OF OPERATIONS Phone: (724) 223 - 2758 Email: Mark_Matson@tcenergy.com **Permit Contact Person** Name: KAYLA LEDERGERBER Title: ENV COORDINATOR Phone: (412) 266 - 6897 Email: Kayla_Ledergerber@tcenergy.com [Signature] MARK R. GOROG, P.E., ENVIRONMENTAL PROGRAM MANAGER, SOUTHWEST REGION







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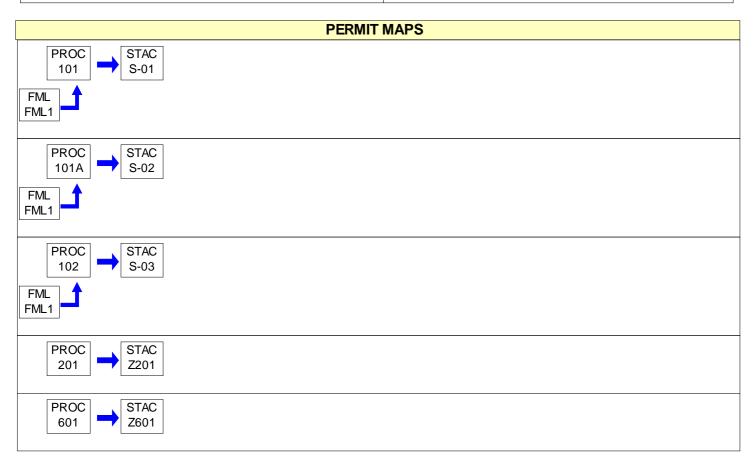




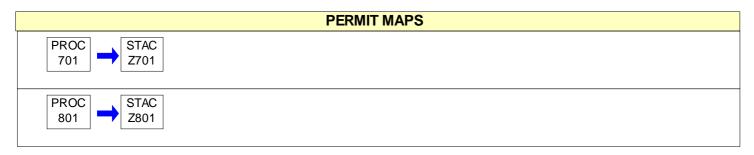


SECTION A. Site Inventory List

Source ID	Source Name	Capacity	/Throughput	Fuel/Material
	4700 BHP, CENTAUR 40-4700S TURBINE # 1, SN 5281	49.700	MMBTU/HR	
		48.023	MCF/HR	Natural Gas
101A	4700 BHP, CENTAUR 40-4700S TURBINE # 2, SN 5282	49.700	MMBTU/HR	
		48.023	MCF/HR	Natural Gas
102	ONE NATURAL GAS FIRED WAUKESHA EMERGENCY GENERATOR 440 BHP	3.350	MCF/HR	Natural Gas
201	HEATERS/BOILERS	2.304	MCF/HR	Natural Gas
601	VENTING/BLOWDOWNS		N/A	Natural Gas
701	FUGITIVES		N/A	Natural Gas
801	PIGGING OPERATIONS		N/A	Natural Gas
FML1	NATURAL GAS	L		
S-01	STACK UNIT- TURBINE # 1			
S-02	STACK UNIT -TURBINE # 2			
S-03	STACK EMERGENCY ENGINE			
Z201	HEATERS/BOILERS STACK			
Z601	VENTING/BLOWDOWNS STACK			
Z701	FUGITIVES STACK			
Z801	PIGGING OPERATIONS FUGITIVES			







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DEP Auth ID: 1412001 DEP PF ID: 767932





#001 [25 Pa. Code § 121.1]

Definitions.

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

#002 [25 Pa. Code § 127.446]

Operating Permit Duration.

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

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

Permit Renewal.

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

#004 [25 Pa. Code § 127.703]

Operating Permit Fees under Subchapter I.

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





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

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

Transfer of Operating Permits.

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

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

Inspection and Entry.

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

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

Compliance Requirements.

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







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

#008 [25 Pa. Code § 127.441]

Need to Halt or Reduce Activity Not a Defense.

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

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

Duty to Provide Information.

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

#010 [25 Pa. Code § 127.461]

Revising an Operating Permit for Cause.

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

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

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

Operating Permit Modifications

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





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

#012 [25 Pa. Code § 127.441]

Severability Clause.

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

#013 [25 Pa. Code § 127.449]

De Minimis Emission Increases.

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



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

#014 [25 Pa. Code § 127.3]

Operational Flexibility.

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

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





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

#015 [25 Pa. Code § 127.11]

Reactivation

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

#016 [25 Pa. Code § 127.36]

Health Risk-based Emission Standards and Operating Practice Requirements.

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

#017 [25 Pa. Code § 121.9]

Circumvention.

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

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

Reporting Requirements.

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

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

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





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

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

Sampling, Testing and Monitoring Procedures.

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

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

Recordkeeping.

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

#021 [25 Pa. Code § 127.441(a)]

Property Rights.

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

#022 [25 Pa. Code § 127.447]

Alternative Operating Scenarios.

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





#023 [25 Pa. Code §135.3]

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 §121.7]

Prohibition of air pollution.

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

002 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

- (a) No person may permit the emission into the outdoor atmosphere of fugitive air contaminant from a source other than the following:
 - (1) Construction or demolition of buildings or structures.
 - (2) Grading, paving and maintenance of roads and streets.
- (3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.
 - (4) Clearing of land.
 - (5) Stockpiling of materials.
 - (6) Open burning operations.
 - (7) (8) Not applicable.
- (9) Sources and classes of sources other than those identified in paragraphs (1)-(8), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:
 - (i) the emissions are of minor significance with respect to causing air pollution; and
- (ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.
- (b) An application form for requesting a determination under either subsection (a)(9) or §129.15(c) is available from the Department. In reviewing these applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, characteristics of emissions, quantity of emissions, and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant shall be required to demonstrate that the requirements of subsections (a)(9) and (c) and §123.2 (relating to fugitive particulate matter) or of the requirements of §129.15(c) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.
 - (c) [See Work Practice Requirements.]
 - (d) Not applicable.

003 [25 Pa. Code §123.2]

Fugitive particulate matter

A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in §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.

004 [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 the property of the person on whose land the source is being operated.

005 [25 Pa. Code §129.14]

Open burning operations

(a) Not applicable.





SECTION C. **Site Level Requirements**

- (b) Outside of air basins. No person may permit the open burning of material in an area outside of air basins in a manner
- (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.
 - (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).





SECTION C. Site Level Requirements

- (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.

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

III. MONITORING REQUIREMENTS.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall conduct a fractional natural gas analysis at the inlet natural gas to the facility at a minimum of once per calendar year using gas chromatography or alternative sampling method and monitoring frequency as approved by the Department, in writing. Each annual gas analysis shall be taken no sooner than ninety (90) days from the previous sample. The gas chromatograph shall be calibrated and maintained in accordance with the manufacturer's specifications and operated in accordance with the manufacturer's recommended operating practices. The annual fractional gas analysis data shall be maintained for a minimum of five years and shall be made available to the Department upon request.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

A facility-wide inspection shall be conducted at a minimum of once per day when the Facility is visited 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.

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 potentially objectionable odors 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 any visible stack emissions, fugitive emissions, or potentially objectionable odors are apparent, the Owner/Operator shall take corrective action.





SECTION C. Site Level Requirements

IV. RECORDKEEPING REQUIREMENTS.

008 [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 of operation per month that each turbine and engine operated.
- b. The amount of fuel used per month by each turbine and engine.
- c. Records including a description of testing methods, results, all turbine operating data collected during tests, and a copy of the calculations performed to determine compliance with emission standards for each turbine.
- d. Copies of the report that demonstrates that the turbines were operating at rated horsepower conditions during performance testing.
- e. Copies of the manufacturer's recommended maintenance schedule for each turbine and engine.
- f. Records of any maintenance conducted on each turbine and engine.
- g. Records of a fuel sulfur content analysis performed at least once every two years.
- h. Records of each visible stack, fugitive, and potentially objectionable odor inspection shall be maintained in a log and at a minimum include the date, time, name and title of the observer, along with any corrective action taken as a result.
- i. Maintaining a logbook for the results of each monthly AVO inspection, including date of each inspection performance and the name of the company representative performing the inspection.
- j. Leaks, repair methods, and repair delays shall be recorded and maintained for a minimum period of five years.
- k. Records of annual inlet gas chromatography analyses or alternative methods as approved by the Department, in writing.
- I. Copies of the manufacturer's specifications and recommended maintenance schedule for the inlet gas chromatography analyzer(s).
- m. Records of actual natural gas throughput per day through the facility.
- n. Records of the date, time, duration, volume of natural gas released, and emissions from each blowdown and emergency shutdown at the facility.
- o. Records of any leak detected and associated repair activity through the leak detection and repair or maintenance program.
- p. Facility-wide 12-month rolling totals of the following pollutants for all air contamination sources at the facility (including miscellaneous sources): NOx, CO, VOC, SOx, PM-10, PM-2.5, HAPs (including but not limited benzene, if applicable) and greenhouse gases as CO2 equivalent (CO2e).
- q. Records of the date, time, location of launcher/receiver, best management practices, associated emissions from pigging events, and recordkeeping requirements under Section D, Source 801, Condition #001 of this state-only operating permit.
- All logs and required records shall be maintained on site or at an alternative location acceptable to the Department for a minimum of five (5) years and shall be made available to the Department upon request.





SECTION C. **Site Level Requirements**

REPORTING REQUIREMENTS.

63-00983

009 [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.
- 7. The 12-month rolling sum of emissions (including, but not limited to, criteria pollutants, VOCs, benzene, methanol, formaldehyde, greenhouse gases, and total HAPs), including any emission increases that occurred as a result of the malfunction event.
- (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.

010 [25 Pa. Code §135.3]

Reporting

- (a) A person who owns or operates a source to which this chapter applies, and who has previously been advised by the Department to submit a source report, shall submit by March 1 of each year a source report for the preceding calendar year. The report shall include information for all previously reported sources, new sources which were first operated during the proceeding calendar year and sources modified during the same period which were not previously reported.
- (b) A person who receives initial notification by the Department that a source report is necessary shall submit an initial source report within 60 days after receiving the notification or by March 1 of the year following the year for which the report is required, whichever is later.
- (c) A source owner or operator may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.





SECTION C. Site Level Requirements

011 [25 Pa. Code §135.5]

Recordkeeping

Source owners or operators shall maintain and make available upon request by the Department records including computerized records that may be necessary to comply with §135.3 and §135.21 (relating to reporting; and emission statements). These may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4] Subpart A - General Provisions

Address.

The Facility is subject to New Source Performance Standards under 40 CFR Part 60 Subpart KKKK and 40 CFR Part 60 Subpart JJJJ and National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 Subpart ZZZZ. In accordance with 40 CFR §60.4 and 40 CFR §63.9, copies of all requests, reports, applications, submittals, and other communications regarding the affected facilities shall be forwarded to both EPA and the Department at the addresses listed below unless otherwise directed.

Associate Director
United States Environmental Protection Agency
Region III, Air and Radiation Division
Permits Branch (3AD10)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103-2852

Pennsylvania Department of Environmental Protection Southwest Regional Office Air Quality Program 400 Waterfront Drive Pittsburgh, PA 15222 412-442-4000

VI. WORK PRACTICE REQUIREMENTS.

013 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

- (c) A person responsible for any source specified in subsections (a)(1) -- (7) or (9) shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:
- (1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.
- (2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.
 - (3) Paving and maintenance of roadways.
- (4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall operate and maintain all air contamination sources and air cleaning devices authorized under this state-only operating permit in accordance with the manufacturer's specifications, procedures, recommended maintenance schedule, and the specifications in this state-only operating permit, or an alternative procedure approved by the Department.







SECTION C. Site Level Requirements

VII. ADDITIONAL REQUIREMENTS.

015 [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 stateonly operating permit may be in excess of the limitations specified in, or established pursuant to this plan approval or 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 25 Pa. Code Chapter 139, where applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the company that testing is required.

016 [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), date of anticipated start-up (30-60 days prior to equipment start-up), 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).

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.





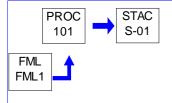


Source ID: 101 Source Name: 4700 BHP, CENTAUR 40-4700S TURBINE # 1, SN 5281

> Source Capacity/Throughput: 49.700 MMBTU/HR

> > 48.023 MCF/HR **Natural Gas**

Conditions for this source occur in the following groups: SOLAR CENTAUR 40-4700S TURBINES



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).

RECORDKEEPING REQUIREMENTS.

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

REPORTING REQUIREMENTS.

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

WORK PRACTICE REQUIREMENTS. VI.

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

VII. ADDITIONAL REQUIREMENTS.

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





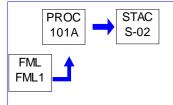


Source ID: 101A Source Name: 4700 BHP, CENTAUR 40-4700S TURBINE # 2, SN 5282

Source Capacity/Throughput: 49.700 MMBTU/HR

48.023 MCF/HR Natural Gas

Conditions for this source occur in the following groups: SOLAR CENTAUR 40-4700S TURBINES



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

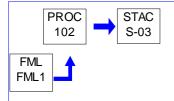
No additional requirements exist except as provided in other sections of this permit including Section B (State Only General Requirements) and/or Section E (Source Group Restrictions).





Source ID: 102 Source Name: ONE NATURAL GAS FIRED WAUKESHA EMERGENCY GENERATOR 440 BHP

Source Capacity/Throughput: 3.350 MCF/HR Natural Gas



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

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

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall not allow the emissions into outdoor atmosphere of total particulate matter (TPM) from Source 102 in a manner that the concentration of TPM in the effluent gas exceeds 0.02 grains per dry standard cubic foot (gr/dscf).

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

- (a) (d) Not applicable.
- (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) Not applicable.

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

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

(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.





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

(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 x 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.

 $1.164 \times 10-3 = \text{Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius}$.

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. Cd = VOC concentration measured as propane in ppmv. 1.83 x 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 38 and Method 320 on the 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 omittedrefer to regulation for exact formula notation). "Equation 4" Where: RFI = Response factor of compound i when measured with EPA Method 25A. CM = Measured concentration of compound i in ppmv as carbon. (Formula omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 6" Where: C icorr = Concentration of compound i measured by EPA Method 320, ppmv as carbon. (Formula omittedrefer to regulation for exact formula notation). "Equation 6" Where: C = Concentration of compound i measured by EPA Method 320, ppmv as carbon. (Formula omittedrefer to regulation for exact formula notation). "Equation 6"	
ER = Emission rate of VOC in g/HP-hr. Cd = VOC concentration measured as propane in ppmv. 1.833 x 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 omittedrefer to regulation for exact formula notation). "Equation 4" Where: RFi = Response factor of compound i when measured with EPA Method 25A. CM = Measured concentration of compound i in ppmv as carbon. (Formula omittedrefer to regulation for exact formula notation). "Equation 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. (Formula omittedrefer to regulation for exact formula notation). "Equation 6" Where:	Image: "Equation 3"
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 omittedrefer to regulation for exact formula notation). "Equation 4" Where: Chief = Response factor of compound i when measured with EPA Method 25A. CMI = Measured concentration of compound i in ppmv as carbon. (Formula omittedrefer to regulation for exact formula notation). "Equation 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. (Formula omittedrefer to regulation for exact formula notation). "Equation 6" Where:	Where:
1.833 x 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 omittedrefer to regulation for exact formula notation). "Equation 4" Where: RFi = Response factor of compound i when measured with EPA Method 25A. CM = Measured concentration of compound i in ppmv as carbon. (Formula omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	ER = Emission rate of VOC in g/HP-hr.
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 omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 5" Where: C icorr = Concentration of compound i measured by EPA Method 320, ppmv as carbon. C imeas = Concentration of compound i measured by EPA Method 320, ppmv as carbon. (Formula omittedrefer to regulation for exact formula notation). "Equation 6" Where:	Cd = VOC concentration measured as propane in ppmv.
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 omittedrefer 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. (Formula omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	
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 omittedrefer 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 omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.
(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 feator 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 omittedrefer 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 omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	T = Time of test run, in hours.
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 omittedrefer 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 omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	HP-hr = Brake work of the engine, in HP- hr.
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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 omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	(Formula omittedrefer to regulation for exact formula notation).
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 omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	"Equation 4"
CMi = Measured concentration of compound i in ppmv as carbon. CAi = True concentration of compound i in ppmv as carbon. (Formula omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	Where:
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(Formula omittedrefer 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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	CMi = Measured concentration of compound i in ppmv as carbon.
"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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	CAi = True concentration of compound i in ppmv as carbon.
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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	(Formula omittedrefer to regulation for exact formula notation).
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 omittedrefer to regulation for exact formula notation). "Equation 6" Where:	"Equation 5"
carbon. C imeas = Concentration of compound i measured by EPA Method 320, ppmv as carbon. (Formula omittedrefer to regulation for exact formula notation). "Equation 6" Where:	Where:
(Formula omittedrefer to regulation for exact formula notation). "Equation 6" Where:	
"Equation 6" Where:	C imeas = Concentration of compound i measured by EPA Method 320, ppmv as carbon.
Where:	(Formula omittedrefer to regulation for exact formula notation).
	"Equation 6"
CPeq = Concentration of compound i in mg of propane equivalent per DSCM.	Where:
	CPeq = Concentration of compound i in mg of propane equivalent per DSCM.

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Operation Hours Restriction(s).

63-00983

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Operation of Source 102 shall not exceed 500 hours in any consecutive rolling 12-month period.

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.

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245] # 006 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

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

- (a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.
- (1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
- (2) Maintenance conducted on the engine.
- (3) Not applicable.
- (4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.
- (b) (c) Not applicable.
- (d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference - see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.
- (e) If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in §60.4243(d)(3)(i), you must submit an annual report according to the requirements in paragraphs (e)(1) through (3) of this section.
- (1) The report must contain the following information:
- (i) Company name and address where the engine is located.
- (ii) Date of the report and beginning and ending dates of the reporting period.
- (iii) Engine site rating and model year.





- (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
- (v)-(vi) [Reserved]
- (vii) Hours spent for operation for the purposes specified in §60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- (2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- (3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

VI. WORK PRACTICE REQUIREMENTS.

007 [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.

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) Not applicable.
- (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) Not applicable.
- (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) If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 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 to demonstrate compliance.
- (ii) Not applicable.
- (c) Not applicable.
- (d) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.





- (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
- (2) You may operate your emergency stationary ICE for the purpose specified in paragraph (d)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).
- (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 calendar year.
- (ii)-(iii) [Reserved]
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
- (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
- (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
- (ii) [Reserved]
- (e) (f) Not applicable.
- (g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.
- (h) (i) Not applicable.

VII. ADDITIONAL REQUIREMENTS.

009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall operate Source 102 using pipeline quality natural gas only.

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230] #010 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines





Am I subject to this subpart?

- (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (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) (3) Not applicable.
- (4) Owners and operators of stationary SIICE that commence construction after June 12, 2006, where the stationary SIICE are manufactured:
- (i) (iii) Not applicable.
- (iv) On or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).
- (5) Not applicable.
- (b) (f) Not applicable.

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?

Table 3 to this subpart shows which parts of the General Provisions in §60.1 through §60.19 apply to you.

DEP Auth ID: 1412001



COLUMBIA GAS TRANS LLC/REDD FARM COMP STA

SECTION D. **Source Level Requirements**

Source ID: 201 Source Name: HEATERS/BOILERS

> Source Capacity/Throughput: 2.304 MCF/HR Natural Gas



63-00983

RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.22]

Combustion units

- (a) Nonair basin areas. Combustion units in nonair basin areas must conform with the following:
- (1) General provision. A person may not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, from a combustion unit in excess of the rate of 4.0 pounds per million Btu (lbs/MMBtu) of heat input over a 1-hour period, except as provided in paragraph (4).
 - (2) (4) Not applicable.
- (b) (h) Not applicable.

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).

RECORDKEEPING REQUIREMENTS.

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

REPORTING REQUIREMENTS.

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

WORK PRACTICE REQUIREMENTS. VI.

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

VII. ADDITIONAL REQUIREMENTS.

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







Source ID: 601 Source Name: VENTING/BLOWDOWNS

> Source Capacity/Throughput: N/A Natural Gas



RESTRICTIONS.

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

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 maintain records of the date, time, duration, volume of natural gas released, and emissions from each blowdown and emergency shutdown at the facility.

REPORTING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall report each emergency shutdown (ESD) event that occurs at this facility in accordance with the malfunction reporting requirements of Section C of this operating permit.

WORK PRACTICE REQUIREMENTS. VI.

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

VII. ADDITIONAL REQUIREMENTS.

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





Source ID: 701 Source Name: FUGITIVES

Source Capacity/Throughput: N/A Natural Gas



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.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For each fugitive emissions component constructed and authorized to operate at this facility, the following applies:

- (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.
- (A) The owner or operator may request, in writing, an extension of the LDAR inspection interval from the Air Program Manager of the appropriate DEP Regional Office.
- (B) Any fugitive emissions components that are difficult-to-monitor or unsafe-to-monitor must be identified in the monitoring plan described in Condition 2(a) below.
- (iii) The detection devices must be operated and maintained in accordance with manufacturer-recommended procedures, as required by the test method, or a Department-approved method.
- (iv) A leak is defined as:
 - (A) Any positive indication, whether audible, visual, or odorous, determined during an AVO inspection;
- (B) Any visible emissions detected by an OGI camera calibrated according to 40 CFR §60.18 and a detection sensitivity level of 60 grams/hour; or
- (C) A concentration of 500 ppm calibrated as methane or greater detected by an instrument reading.
- (v) For quarterly inspections using a gas leak detector in accordance with 40 CFR Part 60, Appendix A-7, Method 21, the owner or operator may choose to adjust the detection instrument readings to account for the background organic concentration level as determined according to the procedures in Section 8.3.2.
- (vi) 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.
- (vii) 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.

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

- (a) A fugitive emissions monitoring plan in accordance with (b) through (d) below.
- (b) Records of each monitoring survey which must include:
 - (i) The facility name and location;
 - (ii) The state-only operating permit 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;
 - $\hbox{(vi) The ambient temperature, sky conditions, and maximum wind speed at the time of the survey; } \\$
 - (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 in Condition 2(iv) of this section;
 - (C) The status of repair of each component including:
 - (1) The repair methods applied in each attempt to repair the component;
- (2) The tagging or digital photographing of each component not repaired during the monitoring survey in which the fugitive emissions were discovered;
 - (3) The reasons a component was placed on delay of repair;
 - (4) The date of successful repair of the component; and
- (5) The information on the instrumentation or method used to resurvey the component after repair, if it was not completed during the monitoring survey in which the fugitive emissions were discovered.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.





Records of each monitoring survey conducted during the reporting period shall be included for any annual report required by an applicable New Source Performance Standard (NSPS) or National Emissions Standard for Hazardous Air Pollutants (NESHAP).

The emissions from fugitive emissions components during the reporting period must be included in the annual AES emissions inventory reports as required in Section C of this state-only operating permit.

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Acceptable leak detection methods include any of the following:

- a. Optical gas imaging instrument. Use an optical gas imaging instrument for equipment leak detection in accordance with 40 CFR Part 60, Subpart A, §60.18 of the Alternative work practice for monitoring equipment leaks, §60.18(i)(1)(i); §60.18(i)(2)(i) except that the monitoring frequency shall be annual using the detection sensitivity level of 60 grams per hour as stated in 40 CFR Part 60, Subpart A, Table 1: Detection Sensitivity Levels; § 60.18(i)(2)(ii) and (iii) except the gas chosen shall be methane, and §60.18(i)(2)(iv) and (v); §60.18(i)(3); §60.18(i)(4)(i) and (v); including the requirements for daily instrument checks and distances, and excluding requirements for video records. Any emissions detected by the optical gas imaging instrument is a leak unless screened with Method 21 (40 CFR part 60, appendix A-7) monitoring, in which case 10,000 ppm or greater is designated a leak. In addition, you must operate the optical gas imaging instrument to image the source types required by this subpart in accordance with the instrument manufacturer's operating parameters. Unless using methods in paragraph (b) of this condition, an optical gas imaging instrument must be used for all source types that are inaccessible and cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.
- b. Method 21. Use the equipment leak detection methods in 40 CFR part 60, appendix A-7, Method 21. If using Method 21 monitoring, if an instrument reading of 10,000 ppm or greater is measured, a leak is detected. Inaccessible emissions sources, as defined in 40 CFR Part 60, are not exempt from this subpart. Owners or operators must use alternative leak detection devices as described in paragraph (a) or (b) of this condition to monitor inaccessible equipment leaks or vented emissions.
- c. Infrared laser beam illuminated instrument. Use an infrared laser beam illuminated instrument for equipment leak detection. Any emissions detected by the infrared laser beam illuminated instrument is a leak unless screened with Method 21 monitoring, in which case 10,000 ppm or greater is designated a leak. In addition, you must operate the infrared laser beam illuminated instrument to detect the source types required by this subpart in accordance with the instrument manufacturer's operating parameters.
- d. Acoustic leak detection device. Use the acoustic leak detection device to detect through-valve leakage. When using the acoustic leak detection device to quantify the through-valve leakage, you must use the instrument manufacturer's calculation methods to quantify the through-valve leak. When using the acoustic leak detection device, if a leak of 3.1 scf per hour or greater is calculated, a leak is detected. In addition, you must operate the acoustic leak detection device to monitor the source valves required by 40 CFR Part 60 Subpart W in accordance with the instrument manufacturer's operating parameters. Acoustic stethoscope type devices designed to detect through valve leakage when put in contact with the valve



body and that provide an audible leak signal but do not calculate a leak rate can be used to identify non-leakers with subsequent measurement required to calculate the rate if through-valve leakage is identified. Leaks are reported if a leak rate of 3.1 scf per hour or greater is measured.

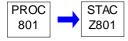






Source ID: 801 Source Name: PIGGING OPERATIONS

> Source Capacity/Throughput: N/A Natural Gas



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.

For each pigging operation, the owner or operator shall maintain the following records, including information on:

- (a) The identification, location, and date of construction of each pig launcher or receiver;
- (b) Records of each pigging operation including the identification of the pig chamber used, the date and time of the pigging operation, and the type and volume of liquids cleared;
- (c) The launcher or receiver pressure prior to venting to the atmosphere, and prior to routing emissions to a flare, where applicable;
- (d) Gas composition data representative of the composition of gas at the facility.
- (e) The emissions calculation for each pig chamber, using the Department's spreadsheet found at http://files.dep.state.pa.us/ or other equivalent method.
- (f) Records of the best management practices as described in Section D, Source 801, Condition #002 below.

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.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The owner or operator that conducts pigging operations shall employ best management practices to minimize the liquids present in the pig receiver chamber and to minimize emissions from the pig receiver chamber including, but not limited to, installing liquids ramps, installing liquids drain, routing high-pressure chambers to a low-pressure line or vessel, using ball valve type chambers, or using multiple pig chambers. The selection of the appropriate best management practices must be documented by the permittee and made available to the Department upon request.



SECTION D. Source Level Requirements

VII. ADDITIONAL REQUIREMENTS.

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





Group Name: SOLAR CENTAUR 40-4700S TURBINES

Group Description: 4700-BHP SOLAR CENTAUR 40-4700S TURBINES

Sources included in this group

ID Name	
101	4700 BHP, CENTAUR 40-4700S TURBINE # 1, SN 5281
101A	4700 BHP, CENTAUR 40-4700S TURBINE # 2, SN 5282

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Emission rates for each Solar Centaur turbine shall be limited as follows:

Air Contaminant Operating Condition Emission Rate

NOx Normal 25 ppmv @ 15% O2 Normal 4.42 lb/hr

All 19.64 tpy

CO Normal 25 ppmv @ 15% O2

Normal 2.69 lb/hr

All 32.30 tpy

NMNEHC Normal 5 ppmv @ 15% O2

Normal 0.31 lb/hr All 1.59 tpy

For purposes of this condition, the "normal" operating scenario excludes startup, shutdown, low load, and low temperature operating scenarios. Startup is defined as beginning when air contaminants begin to be emitted to the ambient air, and shall have duration no greater than 10 minutes. Shutdown is defined as ending when contaminants are no longer being emitted to the ambient air, and shall have duration no greater than 10 minutes. Low temperature is defined as less than 0°F.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4320]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines What emission limits must I meet for nitrogen oxides (NOX)?

- (a) You must meet the emission limits for NOX specified in Table 1 to this subpart.
- (b) Not applicable.

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)?

- (a) If your turbine is located in a continental area, you must comply with either paragraph (a)(1) or (a)(2) of this section. If your turbine is located in Alaska, you do not have to comply with the requirements in paragraph (a) of this section until January 1, 2008.
- (1) You must 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 (lb/MWh)) gross output,
- (2) You must 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 SO2/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement.

- (3) Not applicable.
- (b) Not applicable.

II. TESTING REQUIREMENTS.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

If performance testing is required, such testing shall be conducted as follows [25 Pa. Code §127.441 and §139.11]:

- (a) The permittee shall submit a pre-test protocol electronically to the Department for review at least 90 days prior to the performance of any EPA reference method stack test or portable analyzer test. The permittee 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.
- (b) The permittee 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) A complete test report shall be submitted to the Department no later than 60 calendar days after completion of the onsite 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 permit conditions. The summary results will include, at a minimum, the following information:
- (1) A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
 - (2) Permit number(s) and condition(s) which are the basis for the evaluation.
 - (3) Summary of results with respect to each applicable permit condition.
 - (4) Statement of compliance or non-compliance with each applicable permit condition.
- (e) Pursuant to 25 Pa. Code §139.3, all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (f) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.
- (g) All submittals shall be sent electronically to ra-epstacktesting @pa.gov, with a carbon copy (CC): to ra-epswstacktesting @pa.gov.
- (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.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Owner/Operator shall determine the fuel sulfur content within 180 days of startup of the first compressor turbine. Subsequent fuel sulfur content analyses shall be performed no less often that once every two years thereafter.





007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall perform EPA Method stack testing for NOx, CO, and NMNEHC (excluding formaldehyde) within 180 days after startup of each Solar Centaur compressor turbine in accordance with the requirements of 25 Pa Code Section 139. Subsequent NOx, CO, and NMNEHC performance testing shall be conducted no less than once every five years thereafter. This requirement shall not supersede the requirements of 40 CFR Part 60 Subpart KKKK.

008 [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?

- (a) If you are not using water or steam injection to control NOX emissions, you must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance. If the NOX emission result from the performance test is less than or equal to 75 percent of the NOX emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOX emission limit for the turbine, you must resume annual performance tests.
- (b) Not applicable.

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4400] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How do I conduct the initial and subsequent performance tests, regarding NOX?

- (a) You must conduct an initial performance test, as required in §60.8. Subsequent NOX performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test).
- (1) There are two general methodologies that you may use to conduct the performance tests. For each test run:
- (i) 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 Aof 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:

"Equation 5"

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

Where:

E = NOX emission rate, in lb/MWh

 $1.194 \times 10-7 = conversion constant, in lb/dscf-ppm$

(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 $\S60.4350(f)(2)$; or
- (ii) 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 Aof this part to calculate the NOX emission rate in 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.
- (2) Sampling traverse points for NOX and (if applicable) diluent gas are to be selected following EPA Method 20or 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.

- (3) Notwithstanding paragraph (a)(2) of this section, 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:
- (i) You may perform a stratification test for NOX and diluent pursuant to
- (A) [Reserved], or

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- (B) The procedures specified in section 6.5.6.1(a) through (e) of appendix A of part 75 of this chapter.
- (ii) Once the stratification sampling is completed, you may use the following alternative sample point selection criteria for the performance test:
- (A) 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
- (B) For turbines with a NOX standard greater than 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 ±5 percent of the mean concentration for all traverse points, or the individual traverse point diluent concentrations differs by no more than ±3ppm or ±0.3 percent CO2 (or O2) from the mean for all traverse points; or
- (C) 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.
- (b) 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) If the stationary combustion turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel.
- (2) For a combined cycle and CHP turbine systems with supplemental heat (duct burner), you must measure the total NOX emissions after the duct burner rather than directly after the turbine. The duct burner must be in operation during the performance test.
- (3) If water or steam injection is used to control NOX with no additional post-combustion NOX control and you choose to monitor the steam or water to fuel ratio in accordance with §60.4335, then that monitoring system must be operated concurrently with each EPA Method 20 or EPA Method 7E run and must be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable §60.4320 NOXemission limit.
- (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) If you elect to install a CEMS, the performance evaluation of the CEMS may either be conducted separately or (as described in §60.4405) as part of the initial performance test of the affected unit.
- (6) The ambient temperature must be greater than 0 °F during the performance test.





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?

- (a) You 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 four methodologies that you may use to conduct the performance tests.
- (1) The use of a current, valid purchase contract, tariff sheet, or transportation contract for the fuel specifying the maximum total sulfur content of all fuels combusted in the affected facility. Alternately, the fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter may be used.
- (2) Periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample may be collected either by an automatic sampling system or manually. For automatic sampling, follow ASTM D5287 (incorporated by reference, see § 60.17) for gaseous fuels or ASTM D4177 (incorporated by reference, see § 60.17) for liquid fuels. For manual sampling of gaseous fuels, follow API Manual of Petroleum Measurement Standards, Chapter 14, Section 1, GPA 2166, or ISO 10715 (all incorporated by reference, see § 60.17). For manual sampling of liquid fuels, follow GPA 2174 or the procedures for manual pipeline sampling in section 14 of ASTM D4057 (both 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, D5453, D5623, or D7039 (all incorporated by reference, see § 60.17); or
- (ii) For gaseous fuels, ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or GPA 2140, 2261, or 2377 (all incorporated by reference, see § 60.17).
- (3) 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: [Equation omitted. Refer to regulation for exact formula.]

Where:

E = SO2 emission rate, in lb/MWh

1.664 x 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 $\S 60.4350(f)(2)$; or
- (4) 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.

(b) [Reserved]





III. MONITORING REQUIREMENTS.

011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) In addition to the performance testing, every 2,500 hours of operation and no sooner than forty-five (45) days from the previous test, the permittee shall perform periodic monitoring for NOx and CO emissions to verify that each turbine is in compliance with the NOx and CO per permit emission limits. If a Department-approved performance test has been performed within 45 days prior to the scheduled periodic monitoring, this test may be used in lieu of the periodic monitoring for that time period. A portable gas analyzer may be used to satisfy the requirements of this condition by utilizing three (3) 20-minute test runs. The Department may alter the frequency of portable analyzer tests based on the results. The portable gas analyzer shall be maintained according to the manufacturer's specifications and the procedures specified in ASTMD 6522, or equivalent, as approved by the Department. The Department may also waive all or parts of this condition if the permittee demonstrates compliance, in lieu of testing, through alternate means satisfactory to the Department.
- (b) Within thirty (30) calendar days after the completion of periodic monitoring, the permittee shall submit the results to the Southwest Regional Office's Air Quality Program via email or as otherwise specified by the Department. The Department reserves the right to require source tests in accordance with EPA reference methods should the data from the portable analyzer warrant such tests.

012 [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?

You must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in §60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or 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.

013 [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?

If you choose the option to monitor the sulfur content of the fuel, excess emissions and monitoring downtime are defined as follows:

- (a) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, 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) If the option to sample each delivery of fuel oil has been selected, you must immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.05 weight percent. You must continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and you must evaluate excess emissions according to paragraph (a) of this section. When all of the fuel from the delivery has been burned, you may resume using the as-delivered sampling option.
- (c) 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.

IV. RECORDKEEPING REQUIREMENTS.

014 [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.

015 [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?

- (a) Not applicable.
- (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.

016 [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.

VI. WORK PRACTICE REQUIREMENTS.

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?

- (a) You must operate and maintain your stationary combustion turbine, air pollution control 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.
- (b) Not applicable.

VII. ADDITIONAL REQUIREMENTS.

018 [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?

In accordance with 40 CFR §60.4305, an owner/operator is subject to this subject if the following requirements are met, in relevant part:

- (a) If you are the owner or operator of a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, which commenced construction, modification, or reconstruction after February 18, 2005, your turbine is subject to this subpart.
- (b) Stationary combustion turbines regulated under this subpart are exempt from the requirements of subpart GG of this part. Heat recovery steam generators and duct burners regulated under this subpart are exempted from the requirements of subparts Da, Db, and Dc of this part.

019 [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?

You may elect not to monitor the total sulfur content of the fuel 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 for units located in continental areas and 180 ng SO2/J (0.42 lb SO2/MMBtu) heat input for units located in noncontinental areas or a continental area that the Administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit. You must use one of the following sources of information 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 maximum total sulfur content for oil use in continental areas is 0.05 weight percent (500 ppmw) or less and 0.4 weight percent (4,000 ppmw) or less for noncontinental areas, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet and 140 grains of sulfur or less per 100





standard cubic feet for noncontinental areas, has potential sulfur emissions of less than less than 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input for continental areas and has potential sulfur emissions of less than less than 180 ng SO2/J (0.42 lb SO2/MMBtu) heat input for noncontinental areas; or

(b) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input for continental areas or 180 ng SO2/J (0.42 lb SO2/MMBtu) heat input for noncontinental areas. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.

020 [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 F. Alternative Operation Requirements.

No Alternative Operations exist for this State Only facility.

DEP Auth ID: 1412001 DEP PF ID: 767932





SECTION G. Emission Restriction Summary.

Source id	Source Description
101	4700 BHP CENTAUR 40-4700S TURRINE # 1 SN 5281

Emission Limit			Pollutant
2.690	Lbs/Hr	(Normal Operations)	CO
25.000	PPMV	at 15% O2 (Normal Operations)	CO
32.300	Tons/Yr	All Operating Scenarios	CO
0.310	Lbs/Hr	(Normal Operations)	NMNEHC
1.590	Tons/Yr	All Operating Scenarios	NMNEHC
5.000	PPMV	at 15% O2 (Normal Operations)	NMNEHC
4.420	Lbs/Hr	(Normal Operations)	NOX
19.640	Tons/Yr	All Operating Scenarios	NOX
25.000	PPMV	at 15% O2 (Normal Operations)	NOX
0.060	Lbs/MMBTU	or 0.90 lbs/MWh (110 ng/J) (Subpart KKKK)	SO2

101A 4700 BHP, CENTAUR 40-4700S TURBINE # 2, SN 5282

Emission Limit			Pollutant
2.690	2.690 Lbs/Hr (Normal Operations)		CO
25.000	PPMV	at 15% O2 (Normal Operations)	CO
32.300	Tons/Yr	All Operating Scenarios	CO
0.310	Lbs/Hr	(Normal Operations)	NMNEHC
1.590	Tons/Yr	All Operating Scenarios	NMNEHC
5.000	PPMV	at 15% O2 (Normal Operations)	NMNEHC
4.420	Lbs/Hr	(Normal Operations)	NOX
19.640	Tons/Yr	All Operating Scenarios	NOX
25.000	PPMV	at 15% O2 (Normal Operations)	NOX
0.060	Lbs/MMBTU	or 0.90 lbs/MWh (110 ng/J) (Subpart KKKK)	SO2

102 ONE NATURAL GAS FIRED WAUKESHA EMERGENCY GENERATOR 440 BHP

Emission Limit			Pollutant	
4.000	GRAMS/HP-Hr	Subpart JJJJ or	CO	
540.000	PPMV	at 15% O2 (dry)	CO	
2.000	GRAMS/HP-Hr	Subpart JJJJ or	NOX	
160.000	PPMV	at 15% O2 (dry)	NOX	
500.000	PPMV	25 Pa. Code §123.21(b)	SOX	
1.000	GRAMS/HP-Hr	Subpart JJJJ or	VOC	
86.000	PPMV	at 15% O2 (dry)	VOC	

201 HEATERS/BOILERS

Emission Limit			Pollutant	
4.000	Lbs/MMBTU	123.22	SOX	

Site Emission Restriction Summary

Emission Limit	sion Limit	
500.000 PPMV	123.21	SOX



SECTION G. Emission Restriction Summary.







SECTION H. Miscellaneous.

Columbia Gas Transmission, LLC is authorized to operate the following air contamination sources:

- Sources 101 and 101A, two (2) Solar Centaur 40-4700S Natural Gas-Fired Compressor Turbines;
- Source 102, one (1) 440-BHP Waukesha VGF-F18GL Emergency Generator;
- Source 201, one (1) 1.27 MMBtu/hr Indirect-Fired Heat Exchanger and fifteen (15) 0.072 MMBtu/hr Catalytic Space Heaters;
- Source 601, Venting/Blowdowns;
- Source 701, Fugitive Emission Components;
- Source 801, Pigging Operations; and
- Miscellaneous Sources including one (1) 2,000-gallon pipeline liquids storage tank and pneumatic devices.

All air contamination sources, including miscellaneous sources (i.e. the 2,000-gallon pipeline liquids storage tank and pneumatic devices) are required to be accounted for in annual AES emission inventory reports.



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