

DOMINION TRANSMISSION, INC.
PERMIT-TO-CONSTRUCT CONDITIONS
PERMIT No. 021-0707-5-0460 & 021-0707-5-0461

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Part A – General Provisions

- (1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications and supplemental information are incorporated into this permit by reference:
 - (a) Application for Fuel Burning Equipment (Form 11) received January 2, 2013 for one (1) Solar Model Mars 100 Gas Turbine Compressor rated at 11.86 MW firing natural gas (16,000 hp nominal).
 - (b) Request for Coverage: Air Quality General Permit to Construct for Small Fuel Burning (Boiler/Heater) Equipment (Form Number MDE/ARMA/PER.031) received January 2, 2013 for one (1) natural gas fired glycol heater rated at 3.0 million Btu per hour.
 - (c) Supplemental Information (Emission Calculations and Air Quality Regulatory Analysis) received January 2, 2013.
 - (d) Supplemental Information (Emission Calculations, Vendor Specification, and Plot Diagram) received January 2, 2013.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

- (2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Frederick County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:
 - (a) inspect any construction authorized by this permit;

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- (b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;
 - (c) inspect any monitoring equipment required by this permit;
 - (d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and
 - (e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.
- (3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.
- (4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of a nuisance or air pollution.
- (5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.
- (6) Subsequent to issuance of this permit, the Department may impose additional and modified requirements that are incorporated into a State permit-to-operate issued pursuant to COMAR 26.11.02.13.

Part B – Applicable Regulations

- (1) This source is subject to all applicable federal air pollution control requirements including, but not limited to, the following:
- (a) All applicable terms, provisions, emissions standards, testing, monitoring, record keeping, and reporting requirements included in federal New Source Performance Standards (NSPS) promulgated under 40 CFR 60, Subparts A, KKKK - Standards of Performance for Stationary Combustion Turbines for which Construction, Modification or Reconstruction commenced after February 18, 2005; and JJJJ – Standards of Performance for Stationary Spark Ignition Internal

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Combustion Engines for which Construction, Modification or Reconstruction commenced after June 12, 2006.

For Combustion Turbine (021-0707-5-0460) only

Emission Limits

§60.4315 - What pollutants are regulated by this subpart?

The pollutants regulated by this subpart are nitrogen oxide (NO_x) and sulfur dioxide (SO₂).

§60.4320 - What emission limits must I meet for nitrogen oxides (NO_x)?

You must meet the emission limits for NO_x specified in Table 1 to this subpart.

Table 1 to Subpart KKKK of Part 60—Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines		
Combustion turbine type	Combustion turbine heat input at peak load (HHV)	NO_x emission standard
New turbine firing natural gas	> 50 MM Btu/h and ≤ 850 MM Btu/h	25 ppm at 15 percent O ₂ or 150 ng/J of useful output (1.2 lb/MWh).

§60.4330 - 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), (a)(2), or (a)(3) 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;

General Compliance Requirements

§60.4333 - 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.”

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For Emergency Generator (021-0707-9-0372) only

What This Subpart Covers

§60.4230 - Am I subject to this subpart?

“(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

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

(iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).”

§60.4232 - How long must my engines meet the emission standards if I am a manufacturer of stationary SI internal combustion engines?

“Engines manufactured by stationary SI internal combustion engine manufacturers must meet the emission standards as required in §60.4231 during the certified emissions life of the engines.”

Emission Standards for Owners and Operators

§60.4233 - What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

“(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.”

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Table 1 to Subpart JJJJ of Part 60—NO_x, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards ^a					
			g/HP-hr			ppmvd at 15% O ₂		
			NO _x	CO	VOC ^d	NO _x	CO	VOC ^d
Emergency	25<HP<130	1/1/2009	^c 10	387	N/A	N/A	N/A	N/A
	HP≥130		2.0	4.0	1.0	160	540	86

^a Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.
^c The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x+ HC.
^d For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

§60.4234 - 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.”

§60.4236 - What is the deadline for importing or installing stationary SI ICE produced in previous model years?
 “(c) For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.”

Compliance Requirements for Owners and Operators

§60.4243 - What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?
 “(b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.
 (1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.
 (2) **Purchasing a non-certified engine** and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according

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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.**"

"(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, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, 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 any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) 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) Not Applicable.

(iii) Not Applicable.

(3) Not Applicable."

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- (b) All notifications required under 40 CFR 60 or 63, Subparts A, KKKK and JJJJ shall be submitted to both of the following:

The Administrator
Compliance Program
Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, STE 715
Baltimore MD 21230

and

Director, Air Protection Division
U.S. EPA – Region 3
Mail Code 3AP00
1650 Arch Street
Philadelphia, PA 19103-2029

- (2) This source is subject to all applicable federally enforceable state air pollution control requirements including, but not limited to, the following regulations:
- (a) COMAR 26.11.01.04A – Requirement for Testing
“(1) The Department may require any person to conduct or have conducted testing to determine compliance with this subtitle. The Department, at its option, may witness or conduct these tests. This testing will be done at a reasonable time, and all information gathered during a testing operation will be provided to both parties.”
- (b) COMAR 26.11.01.07C – Report of Excess Emissions
“(1) In the case of any occurrence of excess emissions, expected to last or actually lasting for 1 hour or more, from any installation required by COMAR 26.11.02.13 to obtain a State permit to operate, the owner or operator shall report the onset and shall report the termination of the occurrence to the Department by telephone.
(2) Telephone reports of excess emissions shall include the following information:
(a) The identity of the installation and the person reporting;
(b) The nature or characteristics of the emissions (for example, hydrocarbons, fluorides);
(c) The time of occurrence of the onset of the excess emissions and the actual or expected duration of the occurrence; and
(d) The actual or probable cause of the excess emissions.”
- (c) COMAR 26.11.02.04 – Duration of Permits.

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“B. Permits to Construct and Approvals. A permit to construct or an approval expires if, as determined by the Department:

- (1) Substantial construction or modification is not commenced within 18 months after the date of issuance of the permit or approval, unless the Department specifies a longer period in the permit or approval;
- (2) Construction or modification is substantially discontinued for a period of 18 months after the construction or modification has commenced; or
- (3) The source for which the permit or approval was issued is not completed within a reasonable period after the date of issuance of the permit or approval.”

(d) **COMAR 26.11.02.09A – Sources Subject to Permits to Construct and Approvals.**

“A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals:

- (3) New Source Performance Standard Source (NSPS source), as defined at COMAR 26.11.01.01—permit to construct required, except for generating stations constructed by electric companies;
- (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter—permit to construct required.”

For Combustion Turbine (021-0707-5-0460) and Heater (021-0707-5-0461) only

(e) **COMAR 26.11.09.05 - Visible Emissions.**

“A. Fuel Burning Equipment.

(1) Areas I, II, V, and VI. In Areas I, II, V, and VI, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity.

(3) **Exceptions.** Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:

- (a) The visible emissions are not greater than 40 percent opacity; and
- (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.”

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(f) **COMAR 26.11.09.05E. - Stationary Internal Combustion Engine Powered Equipment.**

“(2) Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

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(3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(4) Exceptions.

(a) Section E(2) of this regulation does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(b) Section E(2) of this regulation does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(i) Engines that are idled continuously when not in service: 30 minutes;

(ii) All other engines: 15 minutes.

(c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics."

(3) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.13A – Sources Subject to State Permits to Operate.

"A. Except for a source that is covered by a Part 70 permit, a person may not operate or cause to be operated any of the following sources without first obtaining, and having in current effect, a State permit to operate as required by this regulation: (2) Fuel-burning equipment, hot oil heaters, and stationary combustion turbines with a maximum rated heat input capacity of 50 million Btu (52.8 gigajoules) or more per hour."

(b) COMAR 26.11.02.14D - Procedures for Obtaining State Permits to Operate and Permits to Construct Certain Sources and Permits to Construct Control Equipment on Existing Sources.

"An application for a permit to construct may be submitted at any time. A complete application for an initial State permit to operate shall be submitted not later than 60 days before the source is to commence operating. A complete application for the renewal of a State permit to operate shall be submitted not later than 60 days before the expiration date in a State permit to operate. If a timely application for a renewal has been submitted, the current State permit to operate remains in effect until the Department makes a final decision to issue or deny the permit."

(c) COMAR 26.11.02.19C. - Information required to be maintained by a Source.

"(1) Beginning January 1, 1994, the owner or operator of a source for which a permit to operate is required shall maintain records necessary to support the emission certification, including the following information:

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- (a) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
 - (b) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
 - (c) Amounts, types, and analyses of all fuels used;
 - (d) Emission data from continuous emission monitors that are required by this subtitle or EPA regulations, including monitor calibration and malfunction information;
 - (e) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment, including significant maintenance performed, malfunctions and downtime, and episodes of reduced efficiency of this equipment;
 - (f) Limitations on source operation or any work practice standards that significantly affect emissions; and
 - (g) Other relevant information as required by the Department.
- (2) The logs and other records of information required by §C(1) of this regulation shall be retained for a period of 5 years and made available to the Department upon request.
- (3) If the owner or operator of a source for which a permit to operate is required fails to maintain or provide the data required by this section, which the Department requests in order to verify the emissions during the previous calendar year, the annual emission-based fee for that source shall be based on the estimated allowable emissions, as defined in COMAR 26.11.01.01B(4), of that source, as determined by the Department."
- (d) COMAR 26.11.02.19D. - Emission Certification.
" (1) Beginning January 1, 1994, the responsible official designated by the owner or operator of a source for which a permit to operate is required shall certify, as provided at Regulation .02F of this chapter, the actual emissions of regulated air pollutants from all installations at the plant or facility.
 (2) Certification shall be on a form obtained from the Department and shall be submitted to the Department not later than April 1 of the year following the year for which certification is required.
 (3) An emission certification submitted pursuant to this section and which contains all information required by COMAR 26.11.01.05-1, for NO_x and VOC, satisfies the requirements of COMAR 26.11.01.05-1."
- (e) COMAR 26.11.06.08 – Nuisance.
"An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

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- (f) COMAR 26.11.06.09 – Odors.
“A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created.”

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- (g) COMAR 26.11.36.03 – Emergency Generators and Load Shaving Units NO_x Requirements.

A. Applicability and General Requirements for Emergency Generators and Load Shaving Units.

- (1) The owner or operator of an emergency generator may not operate the generator except for emergencies, testing, and maintenance purposes.
- (2) Except as provided in §A(5) of this regulation, this regulation does not apply to any engine that is fueled with natural gas or propane.
- (3) This regulation does not apply to any engine that operates as a redundant system for power without direct or indirect compensation that is:
 - (h) Located at a nuclear power plant; or
 - (i) Located at a facility where operation of the engine is necessary to support critical national activities relating to security, aerospace research, or communications.
- (4) The owner or operator of an emergency generator or load shaving unit may be subject to the federal standards for stationary internal combustion engines under 40 CFR Parts 60 and 63.
- (5) The owner or operator of an emergency generator or load shaving unit may not operate the engine for testing and engine maintenance purposes between 12:01 a.m. and 2:00 p.m. on any day on which the Department forecasts that the air quality will be a code orange, code red, or code purple unless the engine fails a test and engine maintenance and a re-test are necessary.
- (6) The owner or operator of an engine that is used for any purpose other than for emergency purposes shall install and operate a non-resettable hourly time meter on the engine for the purpose of maintaining the operating log required in §E of this regulation. “

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Part C – Construction & Operating Conditions

- (1) Except as otherwise provided in this part, the combustion turbine, emergency generator and natural gas fired boiler shall be constructed in accordance with specifications included in the incorporated applications.
- (2) Except as otherwise provided in this part, the combustion turbine, emergency generator and natural gas fired boiler shall be operated in accordance with specifications included in the application and any operating procedures recommended by equipment vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures.
- (3) The Permittee must operate and maintain the 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. **[Reference: §60.4333(a) - General Compliance Requirements]**
- (4) The compressor turbine shall employ SoLoNO_x combustion technology to limit emissions of nitrogen oxides (NO_x) to no greater than 15 parts per million (ppm) on a dry volume basis (ppmvd) at 15 percent oxygen (O₂) at ambient temperatures.
- (5) In order to exempt the natural gas compressor station from Major New Source Review (NSR) requirements, the Permittee is subject to the following:
 - (a) the stationary combustion turbine is limited to 6000 hours of operation per year; and
 - (b) the total NO_x emissions is limited to less than 25 tons per year for any 12-month rolling period.
- (6) In order to demonstrate compliance with requirements for the exemption from Major NSR, the Permittee shall:
 - (a) Calculate and record the emissions from the combustion turbine, emergency generator and natural gas fired boiler, for each previous calendar month and a total for the previous 12 consecutive calendar months. The calculations and records shall be updated monthly, within the first 15 days of each following month.
 - (b) Keep a log of the hours of operation for the stationary combustion turbine.
 - (c) Keep records of the downtime hours of the SoLoNO_x for the stationary combustion turbine on a 12 month rolling total basis.
 - (d) Keep records of the annual fuel consumption for the stationary combustion turbine on a 12 rolling total month basis.

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- (7) The emergency generator is limited to 100 hours per year for maintenance check and readiness testing.

Part D – Notifications, Testing and Monitoring

Notifications

For Combustion Turbine

- (1) In accordance with **40 CFR §60.7**, the Permittee shall provide the Department written notification or, if acceptable to both the Department and the owner or operator of a source, electronic notification, as follows:
- (a) A notification of the **date of construction** (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date.
 - (b) A notification of the **actual date of initial startup** of an affected facility postmarked within 15 days after such date.
 - (c) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator (the Department) may request additional relevant information subsequent to this notice.
 - (d) A notification of the anticipated date for conducting the opacity observations required by §60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.

Testing

For Combustion Turbine

- (2) The Permittee shall in accordance with **40 CFR §60.8**, conduct performance tests as follows:
- (a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such

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facility shall conduct performance test(s) and furnish the Administrator (the Department) a written report of the results of such performance test(s).

- (b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator specifies or approves, in specific cases, an alternative reference method.
- (c) The Permittee shall provide the Department at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (the Department) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (the Department) by mutual agreement.
- (d) The Permittee shall provide the Department with two copies of the test protocols at least 30 days prior to any scheduled performance tests.
- (e) NO_x Testing: The Permittee shall conduct performance test for NO_x in accordance with the methodologies specified in 40 CFR §60.4400.
§60.4400 - How do I conduct the initial and subsequent performance tests, regarding NO_x?
“(a) You must conduct an initial performance test, as required in §60.8. Subsequent NO_x performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test).”
- (f) SO_x Testing: The Permittee shall conduct performance test for SO_x in accordance with the methodologies specified in 40 CFR §60.4415, except as provided in §60.4365.
§60.4415 - 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).”

For Emergency Generator

- (3) **§60.4244 - What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?**

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

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(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.”

- (4) The Permittee must conduct an initial performance test for the emergency generator to demonstrate compliance with Table 1, Subpart JJJJ of Part 60. Testing shall be conducted in accordance with 40 CFR §60.8. See Testing in 2(a), (c) & (d).

Monitoring

Conditions 5 through 9 apply to the Combustion Turbine only

- (5) The Permittee shall demonstrate continuous compliance for NO_x in accordance with 40 CFR **§60.4340**:

§60.4340 - How do I demonstrate continuous compliance for NO_x if I do not use water or steam injection?

“(a) If you are not using water or steam injection to control NO_x emissions, you must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance. If the NO_x emission result from the performance test is less than or equal to 75 percent of the NO_x 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 NO_x emission limit for the turbine, you must resume annual performance tests.

(b) As an alternative, you may install, calibrate, maintain and operate one of the following continuous monitoring systems:

(1) Continuous emission monitoring as described in §§60.4335(b) and 60.4345, or

(2) Continuous parameter monitoring (defined in §60.4355) as follows:

(i) For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, you must define parameters indicative of the unit's NO_x formation characteristics, and you must monitor these parameters continuously.

(ii) For any lean premix stationary combustion turbine, you must continuously monitor the appropriate parameters to determine whether the unit is operating in low-NO_x mode.

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- (iii) For any turbine that uses SCR to reduce NO_x emissions, you must continuously monitor appropriate parameters to verify the proper operation of the emission controls.
- (iv) For affected units that are also regulated under part 75 of this chapter, with state approval you can monitor the NO_x emission rate using the methodology in appendix E to part 75 of this chapter, or the low mass emissions methodology in §75.19, the requirements of this paragraph (b) may be met by performing the parametric monitoring described in section 2.3 of part 75 appendix E or in §75.19(c)(1)(iv)(H)."
- (6) The Permittee shall demonstrate continuous compliance with the NO_x emissions limits by performing the following:
- (a) The Permittee shall conduct portable NO_x sampling once per each calendar quarter in which the engine is operated 1000 hours or more. Quarterly sampling and the 1000 hour operating period shall commence upon initial startup of the compressor engine. Stack testing to comply with 40 CFR Part 60.4400 can be completed in lieu of any portable NO_x sampling. The Permittee shall not operate the engine solely to conduct portable emission sampling. If the unit is not available for use during any scheduled portable sampling, the Permittee is required to complete portable sampling as soon as practicable once the unit is available for sampling. The follow-up sampling run shall be performed within 300 operating hours of operation after the missed scheduled sampling. The follow-up sampling cannot count towards two quarters of sampling.
 - (b) If a portable NO_x sampling run indicates a NO_x concentration that is greater than 15 ppm, the Permittee shall take appropriate steps to troubleshoot and/or repair the cause of the elevated NO_x levels and conduct a second portable NO_x sampling run within 48 operating hours of the first portable NO_x sampling event. The Permittee shall document the problem and repairs made.
 - (c) If the second NO_x reading confirms that NO_x concentrations are above 15 ppm, then the Permittee shall schedule a compliance stack test within the next 45 days unless an extension is requested and approval granted by the Department. The Permittee may request an extension for stack testing should unforeseen circumstances prevent testing within the 45 calendar day period. The Department may approve or deny the request upon review of the circumstances.
 - (d) After two (2) years of compressor operation sampling and testing, the Permittee may request an adjustment to the frequency of portable NO_x sampling runs. The request shall be based on the results of actual NO_x stack test data and sampling runs.

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Sulfur Content Monitoring

- (7) **§60.4360 - 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.

- (8) **§60.4365 - 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."

- (9) **§60.4370 - How often must I determine the sulfur content of the fuel?**

"The frequency of determining the sulfur content of the fuel must be as follows:

(b) Gaseous fuel. If you elect not to demonstrate sulfur content using options in §60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur

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content value of the gaseous fuel must be determined and recorded once per unit operating day."

For Emergency Generator

(10) **§60.4237 - What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?**

"(b) Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter."

Part E – Record Keeping and Reporting

- (1) The Permittee shall report to the Department no later than 45 days after the scheduled test, the results of the initial stack test performed.
- (2) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:
 - (a) Logs of visible emissions observations performed.
 - (b) Records and results of any tests performed in compliance with the initial testing as required under **40 CFR §60.8 and 40 CFR 60, Subpart KKKK.**
 - (c) Records and results of fuel sulfur content monitoring if required and make them available to the Department upon request.
 - (d) Logs of the hours of operation for the stationary combustion turbine and the emergency generator.
 - (e) Record the emissions from the combustion turbine, emergency generator and natural gas fired boiler, for each previous calendar month and a total for the previous 12 consecutive calendar months

Conditions (f) through (i) apply to the Combustion turbine only.

(f) **§60.4375 - What reports must I submit?**

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

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(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.”

(g) **§60.4380 - How are excess emissions and monitor downtime defined for NO_x?**

“For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that must be reported are defined as follows:

(c) For turbines required to monitor combustion parameters or parameters that document proper operation of the NO_x emission controls:

(1) An excess emission is a 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.

(2) A period of monitor downtime is a unit operating hour in which any of the required parametric data are either not recorded or are invalid.”

(h) **§60.4385 - 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) *Not Applicable.*

(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.”

(i) **§60.4395 - 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.”

For Emergency Generator

(j) **§60.4245 - What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?**

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"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."

"(e) If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4243(d)(2)(ii) and (iii) or that operates for the purposes 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) Hours operated for the purposes specified in §60.4243(d)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4243(d)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4243(d)(2)(ii) and (iii).

(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."

(3) All notifications and reports required by this permit shall be submitted to:

The Administrator

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Compliance Program
Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, STE 715
Baltimore MD 21230

- (4) All notifications and reports required by 40 CFR 60 Subpart JJJJ and Subpart KKKK:

Director, Air Protection Division
U.S. EPA – Region 3
Mail Code 3AP00
1650 Arch Street
Philadelphia, PA 19103-2029

- (5) The Permittee shall submit to the Department by April 1 of each year a certification of emissions for the previous calendar year. The certifications shall be prepared in accordance with requirements, as applicable, adopted under COMAR 26.11.02.19D.

- (a) Certifications of emissions shall be submitted on forms obtained from the Department.
- (b) A certification of emissions shall include mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each of the facility's registered sources of emissions.
- (c) The person responsible for a certification of emissions shall certify the submittal to the Department in the following manner:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

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- (6) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

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Part F – Temporary Permit-to-Operate Conditions

- (1) This permit-to-construct shall also serve as a temporary permit-to-operate that confers upon the Permittee authorization to operate the natural gas compressor station for a period of up to 180 days after initiating operation of the natural gas compressor station.
- (2) The Permittee shall provide the Department with written or electronic notification of the date on which operation of the natural gas compressor station is initiated. Such notification shall be provided within 10 business days of the date to be reported.
- (3) During the effective period of the temporary permit-to-operate the Permittee shall operate the natural gas compressor station as required by the applicable terms and conditions of this permit-to-construct, and in accordance with operating procedures and recommendations provided by equipment vendors.
- (4) The Permittee shall submit to the Department an application for a State permit-to-operate no later than 60 days prior to expiration of the effective period of the temporary permit-to-operate.

