

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION  
 PERMIT-TO-CONSTRUCT CONDITIONS  
 PERMIT No. 017-0263-X-XXXX  
 DRAFT 2017**

**INDEX**

- Part A – General Provisions
  - Part B – Applicable Regulations
  - Part C – Construction Conditions
  - Part D – Operating Conditions
  - Part E – Notifications, Testing and Monitoring
  - Part F – Record Keeping and Reporting
  - Part G – Temporary Permit-To-Operate Conditions
- 

The following is a list of all equipment covered under this permit to construct:

ARA Registration Number	Description	Installation Date
017-0263-x-xxxx	Turbine #1 (T01): one (1) Solar Taurus 70 -11,150 horsepower (ISO) natural gas-fired turbine-driven compressor unit	TBD
017-0263-x-xxxx	Turbine #2 (T02): one (1) Solar Mars 90 -13,220 horsepower (ISO) natural gas-fired turbine-driven compressor unit	TBD
017-0263-x-xxxx	One (1) Hurst LPW Series natural gas fired boiler rated at 5.25 million Btu per hour heat input	TBD
017-0263-x-xxxx	One (1) Caterpillar G3512 natural gas fired emergency generator rated at 750-kW (1070 hp)	TBD

**Part A – General Provisions**

- (1) The following Air and Radiation Administration (ARA) permit-to-construct applications and supplemental information are incorporated into this permit by reference:
  - (a) Application for Fuel Burning Equipment (Form 11) received November 14, 2016 for natural gas compressor station consisting of two (2) turbines: Solar Taurus 70 -11,150 horsepower (ISO) and Solar Mars 90 -13,220 horsepower (ISO) natural gas-fired turbine-driven compressor units.
  - (b) Application for Gas Cleaning or Emission Control Equipment (Form 6) received November 14, 2016 for Selective Catalytic Reduction (SCR)/Oxidation Catalyst for both the Solar Taurus and Solar Mars turbines to control NO<sub>x</sub>, CO and VOC emissions.

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

- (c) Request for Coverage: Air Quality General Permit to Construct for Small Fuel Burning (Boiler/Heater) Equipment (Form Number MDE/ARMA/PER.031) received November 14, 2016 for one (1) Hurst LPW Series natural gas fired boiler rated at 5.25 million Btu per hour.
- (d) Air Quality Permit to Construct & Registration Application for Emergency Generator (Form Number: MDE/ARMA/PER.042) received November 14, 2016 for one (1) Caterpillar G3512 natural gas fired emergency generator rated at 750-kW (1070 horsepower).
- (e) Supplemental Information [Emission Calculations, Vendor Specification, Air Quality Regulatory Analysis and Plot Diagram] received November 14, 2016.
- (f) Supplemental Information [Zoning letter from the Charles County Government Department of Planning and Growth Management] received January 18, 2017.
- (g) Supplemental Information [Updated dispersion modeling analysis and Turbine/SCR Nitrogen Oxides Monitoring Approach] received May 10, 2017 & March 5, 2018.

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 Charles 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;
  - (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;

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

- (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;  
**JJJJ** – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines for which Construction, Modification or Reconstruction commenced after June 12, 2006;  
**OOOOa** - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015.

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION  
 PERMIT-TO-CONSTRUCT CONDITIONS  
 PERMIT No. 017-0263-X-XXXX  
 DRAFT 2017**

*For Compressor Turbines only (Subpart KKKK)*

**Emission Limits**

**§60.4315** - What pollutants are regulated by this subpart?

The pollutants regulated by this subpart are nitrogen oxide (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>).

**§60.4320** - What emission limits must I meet for nitrogen oxides (NO<sub>x</sub>)?

You must meet the emission limits for NO<sub>x</sub> specified in Table 1 to this subpart.

<b>Table 1 to Subpart KKKK of Part 60—Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines</b>		
<b>Combustion turbine type</b>	<b>Combustion turbine heat input at peak load (HHV)</b>	<b>NO<sub>x</sub> emission standard</b>
New turbine firing natural gas	> 50 MM Btu/h and ≤ 850 MM Btu/h	25 ppm at 15 percent O <sub>2</sub> or 150 ng/J of useful output (1.2 lb/MWh).

**§60.4330** - What emission limits must I meet for sulfur dioxide (SO<sub>2</sub>)?

(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 SO<sub>2</sub> 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 SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/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.”

*For Emergency Generator only (Subpart JJJJ)*

**What This Subpart Covers**

**§60.4230** - Am I subject to this subpart?

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

“(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).”

**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.

**Table 1 to Subpart JJJJ of Part 60—NO<sub>x</sub>, 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 <sup>a</sup>					
			g/HP-hr			ppmvd at 15% O <sub>2</sub>		
			NO <sub>x</sub>	CO	VOC <sup>d</sup>	NO <sub>x</sub>	CO	VOC <sup>d</sup>
Emergency	HP≥130		2.0	4.0	1.0	160	540	86

<sup>a</sup>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 O<sub>2</sub>.

<sup>d</sup>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.”

**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?**

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

“(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.

(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.

(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.”

“(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) 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

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

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

(f) *Not Applicable.*

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

“(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.”

*Note: Engines that operate for non-emergency situations are considered “load shaving units” under COMAR 26.11.36-Distributed Generation and must meet the requirements of COMAR 26.11.36.03.*

*For Compressor Station Fugitive Sources (Subpart 0000a)*

**§60.5397a - What fugitive emissions GHG and VOC standards apply to ..... the affected facility which is the collection of fugitive emissions components at a compressor station?**

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

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

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

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

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

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

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

(4) Procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected,



**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

including timeframes for fugitive emission components that are unsafe to repair. Your repair schedule must meet the requirements of paragraph (h) of this section at a minimum.

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

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

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

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

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

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

(ii) Procedure for a daily verification check.

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

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

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

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

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

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

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

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

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

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

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

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

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

(1) Sitemap.

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

(3) If you are using Method 21, your plan must also include a list of fugitive emissions components to be monitored and method for determining location of fugitive emissions components to be monitored in the field (e.g. tagging, identification on a process and instrumentation diagram, etc.).

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

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

(f)(1) *Not Applicable.*

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

(g) A monitoring survey of each collection of fugitive emissions components at ..... a **compressor station** must be performed at the

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

frequencies specified in paragraphs ... (g)(2) of this section, with the exceptions noted in paragraphs (g)(3) and (4) of this section.

(1) *Not Applicable.*

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

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

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

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

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

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

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

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

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

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

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

(5) The requirements of paragraph (g)(2) of this section are waived for any collection of fugitive emissions components at a compressor station located within an area that has an average calendar month temperature below 0°Fahrenheit for two of three consecutive calendar months of a quarterly monitoring period. The calendar month temperature average for

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

each month within the quarterly monitoring period must be determined using historical monthly average temperatures over the previous three years as reported by a National Oceanic and Atmospheric Administration source or other source approved by the Administrator. The requirements of paragraph (g)(2) of this section shall not be waived for two consecutive quarterly monitoring periods.

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

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

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

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

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

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

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

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

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

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

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

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

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

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

**§60.5420a(c)** - Recordkeeping requirements.

**§60.5420a(c)(15)** For ..... **each collection of fugitive emissions components at a compressor station**, the records identified in paragraphs (c)(15)(i) through (iii) of this section.

(i) The fugitive emissions monitoring plan as required in §60.5397a(b), (c), and (d).

(ii) The records of each monitoring survey as specified in paragraphs (c)(15)(ii)(A) through (I) of this section.

(A) Date of the survey.

(B) Beginning and end time of the survey.

(C) Name of operator(s) performing survey. You must note the training and experience of the operator.

(D) Monitoring instrument used.

(E) When optical gas imaging is used to perform the survey, one or more digital photographs or videos, captured from the optical gas imaging instrument used for conduct of monitoring, of each required monitoring survey being performed. The digital photograph must include the date the photograph was taken and the latitude and longitude of the ..... **collection of fugitive emissions components at a compressor station** imbedded within or stored with the digital file. As an alternative to imbedded latitude and longitude within the digital file, the digital photograph or video may consist of an image of the monitoring survey being performed with a separately operating GPS device within the same digital picture or video, provided the latitude and longitude output of the GPS unit can be clearly read in the digital image.

(F) Fugitive emissions component identification when Method 21 is used to perform the monitoring survey.

(G) Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

(H) Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.

(I) Documentation of each fugitive emission, including the information specified in paragraphs (c)(15)(ii)(I)(1) through (12) of this section.

(1) Location.

(2) Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.

(3) Number and type of components for which fugitive emissions were detected.

(4) Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.

(5) Instrument reading of each fugitive emissions component that requires repair when Method 21 is used for monitoring.

(6) Number and type of fugitive emissions components that were not repaired as required in §60.5397a(h).

(7) Number and type of components that were tagged as a result of not being repaired during the monitoring survey when the fugitive emissions were initially found as required in §60.5397a(h)(3)(ii).

(8) If a fugitive emissions component is not tagged, a digital photograph or video of each fugitive emissions component that could not be repaired during the monitoring survey when the fugitive emissions were initially found as required in §60.5397a(h)(3)(ii). The digital photograph or video must clearly identify the location of the component that must be repaired. Any digital photograph or video required under this paragraph can also be used to meet the requirements under paragraph (c)(15)(ii)(E) of this section, as long as the photograph or video is taken with the optical gas imaging instrument, includes the date and the latitude and longitude are either imbedded or visible in the picture.

(9) Repair methods applied in each attempt to repair the fugitive emissions components.

(10) Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.

(11) The date of successful repair of the fugitive emissions component.

(12) Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

(iii) For the collection of fugitive emissions components at a compressor station, if a monitoring survey is waived under §60.5397a(g)(5), you must maintain records of the average calendar month temperature, including the source of the information, for each calendar month of the quarterly monitoring period for which the monitoring survey was waived.

**(j) Annual reports shall be submitted for ..... each collection of fugitive emissions components at a compressor station that include**

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

the information specified in **§60.5420a(b)(7)**. Multiple collection of fugitive emissions components ..... at a **compressor station** may be included in a single annual report.”

*Note: Annual reports submitted with the Emissions Certification (April 1)*

**§60.5420a(b)** - Reporting requirements.

**§60.5420a(b)(7)** For ..... **the collection of fugitive emissions components at each compressor station** within the company-defined area, the records of each monitoring survey including the information specified in paragraphs (b)(7)(i) through (xii) of this section. For the collection of fugitive emissions components at a compressor station, if a monitoring survey is waived under §60.5397a(g)(5), you must include in your annual report the fact that a monitoring survey was waived and the calendar months that make up the quarterly monitoring period for which the monitoring survey was waived.

- (i) Date of the survey.
- (ii) Beginning and end time of the survey.
- (iii) Name of operator(s) performing survey. If the survey is performed by optical gas imaging, you must note the training and experience of the operator.
- (iv) Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.
- (v) Monitoring instrument used.
- (vi) Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
- (vii) Number and type of components for which fugitive emissions were detected.
- (viii) Number and type of fugitive emissions components that were not repaired as required in §60.5397a(h).
- (ix) Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.
- (x) The date of successful repair of the fugitive emissions component.
- (xi) Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.
- (xii) Type of instrument used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

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

The Administrator

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

Compliance Program  
Maryland Department of the Environment  
Air and Radiation 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.  
“B. Permits to Construct and Approvals. A permit to construct or an approval expires if, as determined by the Department:



**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

- (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;

*For Compressor Turbines and Boiler 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.”

*For Emergency Generator only*

(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.

(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.

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

(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:

(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;

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

- (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<sub>x</sub> 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.”
- (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.”

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

**Part C – Construction Conditions**

- (1) Except as otherwise provided in this part, the combustion turbines, natural gas fired boiler and emergency generator shall be constructed in accordance with specifications included in the incorporated applications.
- (2) The compressor turbines shall employ SoLoNO<sub>x</sub> combustion technology designed to limit emissions as follows:
  - Nitrogen oxides (NO<sub>x</sub>) (Solar Mars 90) – 15 ppmvd;
  - Nitrogen oxides (NO<sub>x</sub>) (Solar Taurus 70) – 9 ppmvd;
  - Carbon Monoxide (CO) – 25 ppmvd;
  - Unburned Hydrocarbons (UHC) – 25 ppmvd; and
  - Volatile Organic Compounds (VOC) – 2.5 ppmvd.

Note: All emissions rates are in terms of parts per million dry volume (ppmvd) @ 15% O<sub>2</sub> and ambient temperatures above 0°F (3-hr averaging time) except during periods of startup and shutdown.
- (3) The compressor turbines shall be equipped with Selective Catalytic Reduction (SCR) technology designed to further reduce the emissions of nitrogen oxides (NO<sub>x</sub>) during operation to 3.75 ppmvd @15% O<sub>2</sub> and ambient temperatures above 0 °F (3-hr averaging time), except during periods of startup and shutdown.
- (4) The compressor turbines shall be equipped with Oxidation Catalyst designed to further reduce the emissions of CO during operation to 5 ppmvd @15% O<sub>2</sub> and VOC emissions by 1.25 ppmvd @15% O<sub>2</sub>. These emission rates apply when ambient temperatures are above 0°F (3-hr averaging time), except during periods of startup and shutdown.

**Part D – Operating Conditions**

- (1) Except as otherwise provided in this part, the compressor turbines, natural gas fired boiler and emergency generator 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.
- (2) The Permittee must operate and maintain the stationary compressor turbines, 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]**

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

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

**Part E – Notifications, Testing and Monitoring**

**Notifications**

*For Compressor Turbines only*

- (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**

*Conditions (2a) thru (2f) apply to Compressor Turbines only*

- (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

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

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) The Permittee shall inform the Department if operational data reveals that the high end and/or low end design temperatures of the SCR and exhaust need to be revised in the future.
- (f) NO<sub>x</sub> Testing: The Permittee shall conduct performance test for NO<sub>x</sub> 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<sub>x</sub>?**  
“(a) You must conduct an initial performance test, as required in §60.8. Subsequent NO<sub>x</sub> performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test).”

**§60.4410 - How do I establish a valid parameter range if I have chosen to continuously monitor parameters?**

“If you have chosen to monitor combustion parameters or parameters indicative of proper operation of NO<sub>x</sub> emission controls in accordance with §60.4340, the appropriate parameters must be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in §60.4355.”

Conditions (2g) thru (2j) apply to Emergency Generator only

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

(g) **§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.

(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.”

(h) 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.

(i) 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.

(j) The Permittee shall provide the Department with two copies of the test protocols at least 30 days prior to any scheduled performance tests.

*Note: Conditions (2g) thru (2j) does not apply if engine is certified.*

**Monitoring**

Conditions (3) thru (5) apply to Compressor Turbines only

(3) The Permittee shall demonstrate continuous compliance for NO<sub>x</sub> in accordance with 40 CFR **§60.4340**:

**§60.4340** - How do I demonstrate continuous compliance for NO<sub>x</sub> if I do not use water or steam injection?

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

- “(a) If you are not using water or steam injection to control NO<sub>x</sub> emissions, you must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance. If the NO<sub>x</sub> emission result from the performance test is less than or equal to 75 percent of the NO<sub>x</sub> 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<sub>x</sub> emission limit for the turbine, you must resume annual performance tests. **[Note:** For purposes of this requirement, the NO<sub>x</sub> limit is 25 ppm]
- (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 as follows:
- (i) *Not Applicable.*
- (ii) *Not Applicable.*
- (iii) For any turbine that uses SCR to reduce NO<sub>x</sub> emissions, you must continuously monitor appropriate parameters to verify the proper operation of the emission controls.
- (iv) *Not Applicable.*”
- (4) The Permittee shall demonstrate continuous compliance with the NO<sub>x</sub> emissions limits by performing the following:
- (a) Each SCR system shall be equipped with temperature probes to monitor the catalyst bed exhaust temperature when the turbine is operating. The SCR urea/ammonia enabling temperature shall be 450 °F (low end). Turbine exhaust gas shall be treated with urea/ammonia solution when the turbine is operating at or above fifty percent load (SoLoNO<sub>x</sub> mode) and the appropriate temperature (as identified above) has been achieved. In the event of potential or actual excess emissions, the Permittee shall follow the requirements of COMAR 26.11.01.07-Malfunctions and Other Temporary Increases of Emissions.
- (b) The thermocouple shall be equipped with an alarm system to notify of any downtime of the thermocouple.
- (c) Each turbine (T01 & T02) shall be equipped with a device to monitor and record the urea/ammonia injection rate at a frequency of not less than once every fifteen minutes during the operation of each unit. In the event that the device being used to monitor and record the urea/injection rate were to malfunction and there are potential or actual excess emissions, the Permittee shall follow the requirements of COMAR 26.11.01.07-Malfunctions and Other Temporary Increases of Emissions.



**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

- (d) Each turbine (T01 & T02) shall be equipped with a device to monitor and record the catalyst bed exhaust temperature at a frequency of not less than once every fifteen minutes during the operation of each unit. In the event that a thermocouple measuring catalyst bed exhaust temperature were to malfunction and there are potential or actual excess emissions, the Permittee shall follow the requirements of COMAR 26.11.01.07-Malfunctions and Other Temporary Increases of Emissions.
- (e) Data captured by the monitoring devices shall be reviewed or observed by the Permittee at a frequency of not less than once per week during which the turbines are called into service. Observations shall be maintained in a permanent log.

Sulfur Content Monitoring

- (5) **§60.4365** - How can I be exempted from monitoring the total sulfur content of the fuel?

“(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 SO<sub>2</sub>/J (0.060 lb SO<sub>2</sub>/MMBtu) heat input for continental areas and has potential sulfur emissions of less than 180 ng SO<sub>2</sub>/J (0.42 lb SO<sub>2</sub>/MMBtu) heat input for noncontinental areas.”

Conditions (6) applies to Emergency Generator only

- (6) **§60.4237** - What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

“(a) Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.”

**Part F – Record Keeping and Reporting**

- (1) The Permittee shall submit a report to the Department no later than 60 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:

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

- (a) Logs of visible emissions observations performed.
- (b) A record of the urea/ammonia injection rate.
- (c) A record of the catalyst bed exhausts temperature.
- (d) A NO<sub>x</sub> Urea/Ammonia Table (Urea/Ammonia Load Map) for each turbine (T01 & T02) to verify that the SCR is operating as specified by the manufacturer. Each NO<sub>x</sub> Urea/Ammonia Table shall include the turbine load, temperature after the catalyst, NO<sub>x</sub> concentration before and after the catalyst, the urea/ammonia consumption rate, and the catalyst efficiency.
- (e) 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.**
- (f) Records and results of fuel sulfur content monitoring if required or valid fuel tariff and make them available to the Department upon request.
- (g) Logs of the hours of operation and fuel consumption for the stationary combustion turbines, boiler and emergency generator on a 12-month rolling total basis.
- (h) Record the emissions from the combustion turbines, emergency generator, and natural gas fired boiler, for each previous calendar month and a total for the previous 12 consecutive calendar months.
- (i) Record blowdowns, estimate emissions and report as part of the Emissions Certification.

*Conditions (j) & (k) apply to Combustion Turbines only*

- (j) **§60.4375 - What reports must I submit?**  
“(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.”
- (k) **§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.”

*Condition (l) applies to Emergency Generator only*

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

(l) **§60.4245 - 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.”

“(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](http://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.”

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

**Note:** Effective May 2, 2016, emergency generators are no longer allowed to participate for emergency demand response operation unless they meet the requirements of a non-emergency generator of the same model year. This engine does not meet the standards for a non-emergency generator, therefore, operation for emergency demand response are not permitted.

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

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

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

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

**DOMINION ENERGY COVE POINT LNG, LP – CHARLES STATION**  
**PERMIT-TO-CONSTRUCT CONDITIONS**  
**PERMIT No. 017-0263-X-XXXX**  
**DRAFT 2017**

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.”

- (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 Administration.

**Part G – 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 combustion turbines.
- (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 new installation 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.